AMERICAN GAS

Association

MONTHLY

MARCH 1947 • VOL. 29 · NO. 3

"Mixing Corner Kitchen"... with all the "tools" for easy baking in one central spot. But even more important, this latest "New Freedom Gas Kitchen" makes short work of *four* big kitchen jobs! 1. *Food storage is more convenient* with a new silent Gas refrigerator that stores a week's groceries plus 60 packages of frozen foods. 2. *Cleaning's a cinch* thanks to a special ventilating system that catches greasy vapors and un-wanted cooking odors at their source. 3. *Dishwashing's almost fun* now that a new automatic Gas water-heater supplies plenty of hot water for a do-everything dishwasher. 4. *As for cooking*, just read about this new automatic Gas range built to "CP" standards. Order one for the first step toward your "New Freedom Gas Kitchen"—today!

Never before such a kitchen for cooking!

Here it is! Your beautiful ultra-modern new Gas range that gives you the best in cooking results . . . with no old-time cooking cares.

No clock watching — complete oven dinners cooked automatically with a simple clock control. Gas turns on and off by itself!

No "half-baked" cakes—oven is ventilated so that heat circulates evenly on every level.

No "stewed" steaks — a Gas broiler really broils . . . flame-seals rich red meat flavor.

No lingering after-heat — cooler top-of-stove cooking with the flame that's completely out the second you turn it off.

No messy cleaning — burners won't clog from boilovers . . . pans stay brighter.

No waiting around — burners instantly light to high heat.

And remember! The surest way to get all these advantages of modern Gas cookery . . . is to look for this "CP" seal before you buy!

P.S. For a complete guide to kitchen planning — send 10¢ in coin or stamps for booklet "New Freedom Gas Kitchens" to: **AMERICAN GAS ASSOCIATION, 420 Lexington Ave., New York 17, N. Y.**

GAS

The Wonder Flame that Cools as well as Heats

With spring on the way seeds of things to come are being planted at national and regional gas conferences throughout the country. Four feature articles in this issue are proof of one substantial planting at the Home Service Workshop. . . . W. H. Wise's advice on the difficult conversion burner problem is a seed which should prove valuable to many gas companies plagued with a serious situation. . . . P. W. Craig planted a promising seed at the Workshop when he called for the gas industry to pay greater heed to the fertile school lunchroom field. Home service has performed yeoman service promoting gas consciousness in the schools—but more promotion and more active support are needed—right now. . . . In 1944 the A. G. A. directors planted the recommendation that home service create sales aids for dealers. One fruit of this planting is described by Mary Huck—a complete and practical demonstration kit for dealers. . . . Range research and development, a fourth seed which is pregnant with possibilities, is capably planted by Paul I. Berno, who tells why gas equipment will continue to lead the field. . . . Each of these conference-blown ideas now belongs to you. Planted well and deep they should grow to a bumper crop of sales.

JAMES M. BEALL
EDITOR

JAC A. CUSHMAN
MANAGING EDITOR

EDITORIAL OFFICES:
AMERICAN GAS ASSOCIATION
420 LEXINGTON AVE., NEW YORK 17, N. Y.

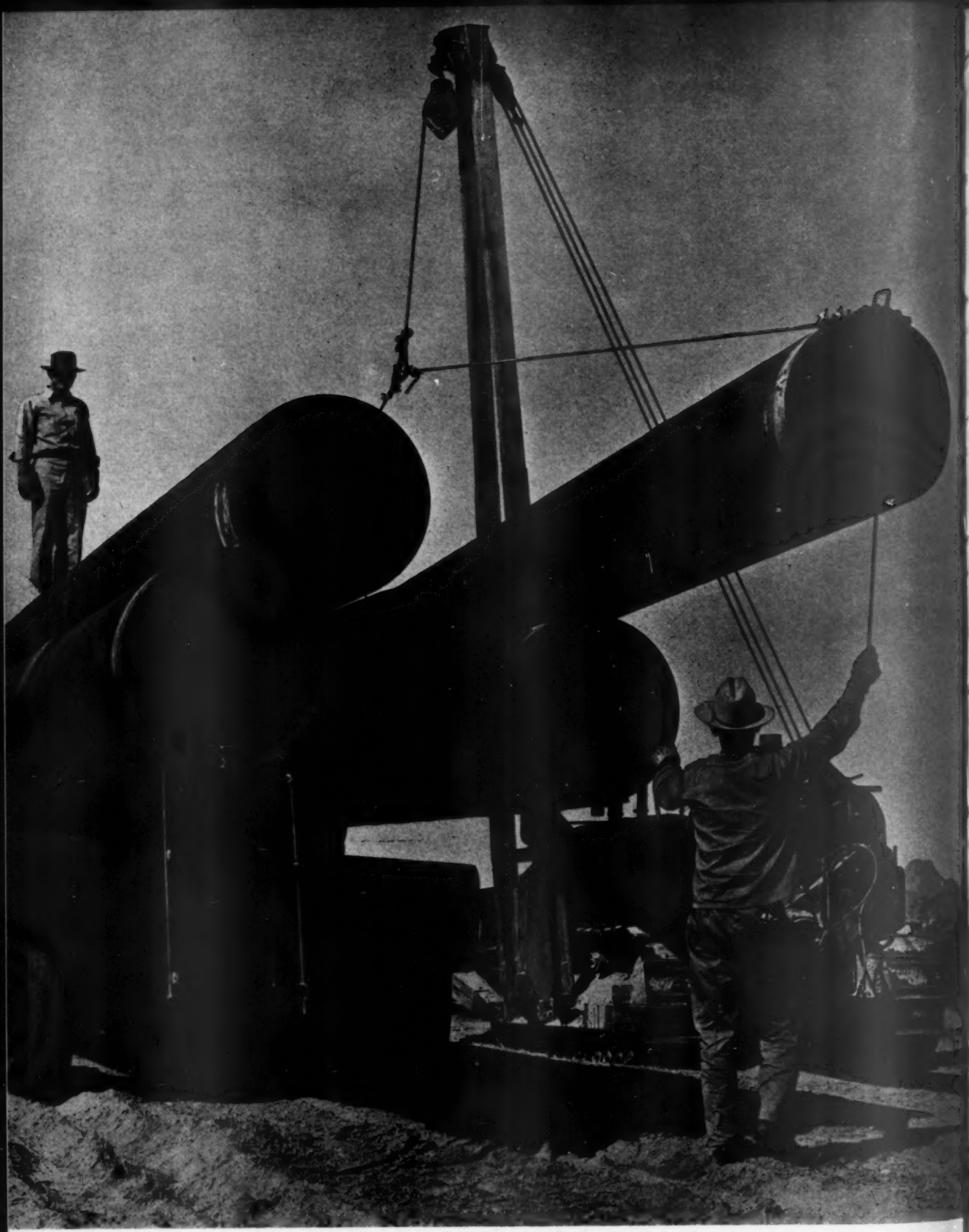
CONTENTS FOR MARCH 1947

FEATURES

SECTIONS

DEPARTMENTS

• Subscription $3.00 a year - Published eleven times a year by the American Gas Association, Inc. Publication Office, American Building, Brattleboro, Vt. Publication is monthly except July and August which is a bi-monthly issue. Address all communications to American Building, Brattleboro, Vermont, or to 420 Lexington Ave., New York 17, N. Y. All manuscript copy for publication should be sent to the editorial offices in New York. The Association does not hold itself responsible for statements and opinions contained in papers and discussions appearing herein. Entered as Second Class Matter at the Post Office at Brattleboro, Vermont, Feb. 10th, 1922, under the Act of March 3, 1879. Cable addresses: American Gas Association, "Amerigas, New York"; American Gas Association Testing Laboratories, "Amerigaslab, Cleveland."



The Conversion Burner Problem

BY W. H. WISE

The Peoples Gas Light & Coke Co., Chicago

THE conversion burner problem is one that sounds highly technical, therefore, the solution offered here will be from the viewpoint of a sales engineer. Inasmuch as, the term "sales engineer" has been constantly abused, I shall give my definition of this term. An engineer is a person who accomplishes a result by dealing with things. A salesman is a person who accomplishes a result by dealing with people. A sales engineer is one who accomplishes a result by dealing with both things and people.

The gas space-heating industry is at present suffering from growing pains. The industry was clamoring for these pains, yet when they came, we were not ready. Someone has said that industry has surveyed, surveyed and surveyed, so that by the time the real problem arrived they were too exhausted to do anything about it. This is certainly a partial truth as regards the gas conversion burner.

•

Are we the same people who, while clamoring for the space-heating business in the "trembling 30's," talked so long and so loud about the merits of our fuel that the general public believed what we were saying, while we did not believe it ourselves? I say this because had we believed what we were saying, and had we possessed the common sense to look about us and analyze our economic position, we most certainly would have been more nearly ready for this infant to grow into manhood. Many gas space-heating manufacturers realized this acceptance, else they would not have planned the plant expansion that in many cases has been effected. And yet we people in the gas utility industry who should know more about our business than anyone else, who certainly should know our customers and their reactions, are caught short with literally thousands of poor conversion burner installations on our lines because we did no protective planning for giving our public something better.

Certainly we shall pay in high service costs, dissatisfied customers and last and greatest, in the loss of prestige for gas and the gas company which did nothing effective to protect its customers. The plan followed by our company was based first on the protection of its customers, second on the protection of the company, and third on the protection of a market for the legitimate manufacturer.

The rise in the percentage of conversion burner sales today can be attributed to several factors. To judge better how to protect all concerned we should analyze these factors.

First—the process of manufacturing this device is relatively simple—too simple in fact. The requirements for listing with which these manufacturers were faced certainly have contributed to machine-shop and hole-in-the-wall operations.

Second—the manufacturers of gas-designed equipment faced with maladjusted economic conditions have been unable to come anywhere near filling the pent-up demand for their product. Thus many who have purchased conversion burners would not have done so if gas-designed equipment had been available.

•

Third—the price differential between oil, coal and gas in most areas is a thin line and some utilities have encouraged the sale of any conversion burner that would give them another space-heating installation.

We realize that for our remarks to be of any value all or some portion of the solution of this problem must be applicable throughout the nation—therefore no detail of our overall program will be omitted. The support of management is necessary before a constructive program can be attempted. A half-hearted attempt by us lesser-lights in our companies will have an ultimate result of making many ene-

Presented at the A. G. A. Eastern Regional Gas Sales Conference in Pittsburgh, February 13.

• Opposite: Unloading five lengths of "Biggest Inch," artery to augment California natural gas reserves. Each 60-foot steel cylinder weighs three tons and represents the largest diameter "high test" pipe ever produced. See complete story on page 132.

mies and accomplishing nothing. Money, manpower and the willingness of management to go all the way on a recommended program of dealer cooperation is imperative if a gas utility recommendation based on sound customer protection is to be received favorably by all sources. We believe the following policy of dealer cooperation plus these responsibilities by the utility involved to be necessary in the control of conversion burners, sales and installation. Our policy is to enable our customers to buy gas-burning equipment, wherever their preference dictates, by conducting all our sales and sales-promotion activities so that dealers throughout the city can maintain a profitable business in the sale of gas equipment.

We hope to make it possible for our gas customers to purchase equipment wherever they please and in whatever section of the city they may choose. Our prime concern is that the customer buys the right kind of gas equipment rather than where he buys it. As long as the appliance and its installation provides safety and economic service our purpose as a gas company is served equally well whether the actual appliance is purchased from a dealer, contractor or our company. It is our policy to sell only gas equipment of high established quality. High quality, laboratory-tested gas-burning equipment is normally available from many manufacturers. It is our policy to display and sell equipment of manufacturers who are representatives of this group.

Public Acceptance

By this policy we help to encourage the broad public acceptance of the better types of equipment. Furthermore, by creating a high-acceptance market for high-grade equipment, we help make it possible for the dealer to sell up to quality rather than down to price. We will not upset the dealers' market so established for better types of equipment by introducing into the Chicago area products of lesser quality. Under our policy we do not compete with outside dealers for gas conversion burner sales. Our established program of dealer cooperation requires that we aid dealers to sell rather than try to take the business away from them. In any instance where we have knowledge that a customer is intending to purchase a gas appliance from a dealer we will encourage the customer to close the sale with the dealer and not try to write it ourselves. The only exception to this policy would be a case where it is felt that the customer is being poorly advised, where neither the customer nor The Peoples Gas Light and Coke Co. would be happy with the equipment proposed.

Our policy requires that all conversion burner installations by contractors be made in accordance with our installation requirements. The responsibility as to what equipment goes on your lines should be specific. With this responsibility should go the authority to act. Does anyone in your company know what constitutes a good conversion burner installation? Does this person have the responsibility and authority to seek out manufacturers of this equipment and offer an attractive market for their product? Does this person have the help to train legitimate installers of this equipment? Will your company say to its customers—here is what we recommend for a safe, efficient, service—free gas-heating installation? Or does your company rest on its laurels and hide from its customers the very heart of its program to protect them? The dissemination of information to your contractor-dealer is a matter we have found to be of considerable importance. Printed material in most cases tells only a part of the story. A personal call by a sales engineer can do more to cement your relations than any other single thing.

The sales engineer's call can show your contractors the equipment your company recommends and the installation practices it supports. Our company has a system calling for a sales survey and a complete inspection of conversion burner installations before approval can be given. Some of you may feel that it would be impossible for you to adopt such a system because of the scattered districts you service and the expense involved. However, we have found an ounce of prevention to be worth a pound of cure—where a poor installation is made service trouble will develop which will surely cause these calls to be made sooner or later.

Records Invaluable

We maintain adequate records from which we are able to cull any information that might be required in an analysis of contractors' work or customer difficulty. Invaluable information as to the quality and service required of individual manufacturer's equipment is obtained from these records.

We have been testing space-heating equipment since the early 30's. We are not publishing our requirements on conversion burners, but use the following screening process before test. Manufacturers requesting tests are asked to submit the following information:

Bright Horizon for 1947

THE gas industry can look forward to a peak year in 1947, according to R. H. Hargrove, president of the American Gas Association, and vice-president and general manager, United Gas Pipe Line Co., Shreveport, La. Here are some of his views:

- **Solidified gains—new high levels in customers served, total gas sales and total revenues.**
- **At least moderate relief from shortages.**
- **Vital assistance from the industry's $4,500,000 research and promotion program.**
- **More than 21,500,000 gas utility customers.**
- **Operating and production improvements reflected in company balance sheets.**
- **Lasting reserves of natural gas as a result of new discoveries and expansion of known fields.**
- **Financial benefits to the gas industry following sale of the "Big Inch" and "Little Inch" pipelines to a gas bidder.**
- **Some requests for rate increases due to rising labor and materials costs.**

A. All engineering data available.
B. All design data, photographs, etc.
C. Types of controls that are standard equipment.
D. Whether intent is to stock parts in this area. Service that will be offered.
E. The latest A. G. A. listing certificate and information showing exactly what control arrangement was used in A. G. A. testing.
F. Plan of merchandising to be followed—that is to whom this equipment will be sold.

From this data we are able to accept or reject equipment for test. If we require major changes in equipment these must be accomplished and made standard practice on a manufacturer's production line before his conversion burner is accepted for testing purposes in our laboratory.

Highly Selective

In this screening process many burners fall by the wayside and many manufacturers do not care to make changes. If the burner is approved after testing their equipment on many critical points, our heating contractors and our own people are notified. We do not recommend any conversion burner which we have not tested, and reserve the right to shut off any heating installation on our lines which in our judgment is unsafe.

Considerable publicity given this procedure and the shutting off of many installations has resulted invariably in the customer having a proper installation made. For instance, if a manufacturer requests a test on his conversion burner we would advise him what changes were necessary before accepting this equipment for test. If he refused to make these changes and attempted to sell his burner in our territory, we would receive an inquiry from our customer or heating contractor as to whether or not we had approved this equipment. If our answer were "No," invariably his next question would be "Why?" Our answer: "Because we have not tested this equipment." His next question: "Why not?" Our answer: "The manufacturer of this particular equipment has not made the changes recommended by us."

"What are these changes?" This information we will not divulge to customers or heating contractors, but we advise them to ask the manufacturer involved why their equipment has not been tested. The next logical question by these people is, "Will you serve gas to any conversion burner even though you have not tested it in your Laboratory?" Our answer: "If this burner installation in our judgment is unsafe at the time of our inspection we reserve the right to discontinue gas service."

From time to time certain heating associations in our territory publish their own installation requirements on conversion burners and capitalize on the fact that their entire membership follows the gas company's recommendations. These data are available to those of you who desire it, and can be obtained from the Heating, Piping and Air Conditioning Contractors' Association, Chicago Chapter, 228 North La Salle Street, Chicago. Much of the material contained in this manual is of course usable at the local level only. Nevertheless, the fundamentals of conversion practices, we believe, are on a national basis.

A. G. A. Revisions Suggested

The next step in the solution of the conversion burner problem must be the up-grading and re-writing by the A. G. A. of their testing and listing requirements.* How this is to be achieved is best answerable by the Association itself. However, any new listing or upgrading of this particular device will not be effective unless it is possible to recall for test all the equipment now listed. Only then can the good be separated from the bad. Only then could legitimate manufacturers have a competitive chance in the price-war to come. We believe that in addition to A. G. A. appliance testing and listing control that a well-rounded program is necessary be- *(Continued on page 155)*

*The A. G. A. Subcommittee on Testing Requirements for Conversion Burners has already recommended a thoroughly revised set of requirements which will be acted upon by the A. G. A. General Approval Requirements Committee at its meeting on March 14.

Gas Slogan

G. M. Jones, Consumers Gas Co., and chairman, New Business Committee, Pennsylvania Gas Association, came up with the following new slogan at the recent P.G.A. sales conference:

GAS IS THE FUEL YOU NEED FOR TODAY'S AGE OF SPEED

Secret Weapon for Offices

● A smug smile was the sole response of white-collar girls to reports that the Army Signal Corps has secretly perfected an infernal machine that takes dictation and types letters. While admitting that no man is indispensable in today's mechanized society, the girls—from a $25-a-week typist to a $75-a-week secretary—unanimously agreed that the female office worker would not fall victim to this secret weapon.

"Not unless the machine can get up and walk around," a lawyer's Woman Friday said. "My boss paces in and out and around the office while he's dictating and I trail him. I also correct his English, but that's confidential."

No details of the wonder weapon are available other than that it was developed in Germany during the war. Girl employees in the War Department itself speculated on the mechanical marvel. "I don't know," one said, "I still think we're prettier."

Men's reaction followed that line of thought. With a wicked glance at his secretary, a sprightly merchandiser speculated on whether the machine could be held on his lap. "It'll do you no good," his brunette employee retorted. "It won't check on your taking your liver pills three times a day."

The "really important" job of a secretary —and taking dictation or typing letters was not included in this category—appeared to be the young women's ace-in-the-hole. "I'd like to see a machine keep track of all the women who telephone him," one advertising executive's secretary suggested. Another remarked, "I sometimes wish they'd get a machine to run errands, like buying his clients' Christmas presents."

When better business machines are invented, a majority of the women agreed, business girls will invent them. In the outer office of a wholesale house the receptionist, a typist and the office manager's secretary compared their dream machines.

"Mine's just a simple improvement on a gramaphone," the receptionist said. "It works by radar. Whenever a fresh salesman gets off the elevator a record goes on and says, 'The boss is in conference and flirting with me won't get him out, so there.' "

—The N. Y. Herald Tribune

Members of the Co-ordinating Committee, which planned and supervised the conversion program in Toledo, look at city map showing progress of the project. Left to right are: R. S. Wenner, industrial sales manager; Clarence Johnson, distribution superintendent, and Frank Cook, service manager

All's "Natural" in Toledo

Utility's servicemen complete conversion of appliances from manufactured to natural gas, ending "ordeal of orifices"

BY WILLIAM F. SMILEY

Publicity Director, The Ohio Fuel Gas Co., Toledo, Ohio

ALL'S "natural" in Toledo, O.—domestically and commercially speaking. Nothing is "artificial." The "ordeal of orifices" is ended. The tremendous undertaking of The Ohio Fuel Gas Co. in converting the 33,108 appliances of 13,243 customers, from manufactured gas to natural gas, has been accomplished.

As one serviceman sums it up: "Maybe now at night I won't have those nightmares of swarms of orifices buzzing around my face like insane bees."

To appreciate the immensity of the job, and understand the reason for "orifice nightmares," consider:

Those 13,243 domestic and commercial customers using manufactured gas were scattered through virtually all parts of Toledo among the more than 72,000 natural gas customers. Numerous streets were served by both manufactured and natural gas. Some homes even had both services—manufactured gas for cooking and natural gas for heating.

Toledo had 270 miles of manufactured gas mains, all except 27 miles of which now have been retired or incorporated into the natural gas system.

The service department of The Ohio Fuel Gas Co. ordered 64,303 parts, mostly small orifices, for use in replacement of parts on appliances. Thousands upon thousands of other parts were adjusted or adapted for natural gas.

In the conversion, the gas company men encountered 80 different makes of ranges, 60 makes of water heaters, 54 makes of radiant heaters, 15 makes of furnaces and boilers, two makes of gas steam radiators, and numerous makes and styles of hot plates, laundry dryers and incinerators.

At Toledo University there were 1,250 Bunsen Burners to be replaced and many small heat-treating furnaces and industrial appliances to be changed over. There were 250 more Bunsen Burners in doctors' offices, scores of "dental torches" in dentists' offices, and the "fire boxes" on typesetting and typecasting machines of newspapers and print shops.

Do you begin to get the "why" of those "orifice nightmares"?

This whale of a job was started in October, 1945, and was completed during the ensuing 15 months—a trying period when there was a discouraging scarcity of parts and materials—and little certainty about anything except that the job must be done.

Obviously, this was no hit-or-miss project. It could only be accomplished with detailed planning and with absolute cooperation among all departments.

To head up the work, I. A. Ludwig, company vice-president and Toledo district manager, named a co-ordinating committee comprised of R. S. Wenner, industrial engineer, chairman; Frank Cook, service manager, and Clarence Johnson, distribution superintendent.

The project proceeded like this:

The city was divided into 48 areas, each with 300 to 550 customers. The construction department selected an area to be changed over and the service department surveyed that area, determining in advance what parts would be needed to convert the appliances. The service department kept a schedule showing parts available in stock, parts needed and when delivery had been promised on parts that had been ordered.

Work in each area was started on a Tuesday in order to give housewives the opportunity to get their Monday washing done. Usually the area was completed by Saturday.

The customers were given at least four days' advance notice by mail, newspaper and radio, of the time the changeover to natural gas was to be made.

I. A. Ludwig, vice-president and Toledo District manager of The Ohio Fuel Gas Co.

They were instructed about ranges, water heaters, refrigerators, all automatic heating equipment, space heaters—all gas appliances. All plans were made to minimize in every way the inconvenience to customers.

Well in advance of the time announced for conversion of an area, the construction department made the necessary changes in the distribution system to introduce natural gas into the lines. When the change-over was made, the lines were opened at strategic places to remove any remaining manufactured gas.

Normally, eight two-man teams of the service department performed the conversion work. Each man was equipped with a set of tools, including various types of wrenches and drills for every anticipated size of orifice. Each man had a reference manual, so he could re-drill many orifices to the required sizes. Each man also carried various types and sizes of orifices and other parts.

In each area the service department set up a repair shop to take care of big jobs and to expedite the re-drilling of orifices. In the first area this shop was established in a boiler room at Toledo University and later in a concessionaire's booth inside the Field House. In other areas, families permitted the gas company men to use basements of their homes. Some men who had work shops or benches in their homes generously turned them over to the workers.

An appliance installation truck, equipped as a mobile shop, also operated in each area where the conversion was being made.

As the work progressed, the men became more proficient. At the outset, about two hours and 20 minutes were required to finish an order. Later, that time was reduced to one hour and 12 minutes (and some homes had as many as eight gas appliances!).

Most ranges could be adjusted, with few parts requiring replacement. On most water heaters it was necessary to replace the burner tips. On radiant heaters, as many as ten orifices or the entire burner was replaced.

On conversion burners in furnaces, the burner heads, venturi, orifices and pilot tubing had to be replaced. New burners were put in refrigerators. In furnaces, the burners, pilots and orifices, were replaced. In most boilers, the pilots were changed.

"Downtown" Section Last

The conversion work was started in the outlying residential areas and moved in toward the center of the city with the big "downtown" section coming last.

In changing over the appliances of a hotel or large restaurant, a team of six service men started at midnight and worked the four or five hours needed to finish the job.

The Ohio Fuel Gas Co. will continue to purchase manufactured gas from The Interlake Iron Corp. but will distribute it only to industrial customers. The gas is a by-product of coke ovens in the making of pig-iron.

The conversion is beneficial to the customer and to the company. It eliminates the necessity for converting appliances of customers moving from an area served with natural gas to one served with manufactured gas, and vice versa. It eliminates any differences which may heretofore have existed in the thermal cost of gas to the customer. It gives all Toledo domestic and commercial customers the best in gas service —natural gas with its greater thermal value. It permits the company to eliminate much duplicate property and to simplify the entire underground distribution system. It permits more efficient operation of the property.

Toledo workers of The Ohio Fuel Gas Co. have been congratulated on a great performance on this job.

Robert Sowers, serviceman, works on purging line of manufactured gas. A shovel is attached to the pipe, extending into the air, and the escaping gas burns harmlessly

On the Spot

● Every time a customer and a gas utility employee meet—you may well mark the spot with an "X," because right there, history is made.

Just a little bit of history, true, but every customer contact leaves its mark —good, bad or indifferent.

Every customer contact helps mold customer opinion of your company. And customer opinion is important. It can make or break us.

So you see, "X Marks the Spot." The spot we're on when we handle customers. Give them the best you have. Be friendly, gracious and courteous. Smile. Take the "rap" if you have to. But remember: Courtesy Always is the *only* attitude for a gas utility employee when you're "on the spot."—The Gas Flame, Indianapolis.

Attractive home service girls of The East Ohio Gas Co. at the A. G. A. exhibit. Left to right: Dorothy Dean, Eileen Root, Dorothy Zdara, Jane Schleicher, Elinore Bientz, Melva Haskins, Chrystle Kos

Part of American Gas Association combined exhibit at the International Heating and Ventilating Exposition in Cleveland. Shown are controls, conversion burners and other modern gas-fired appliances

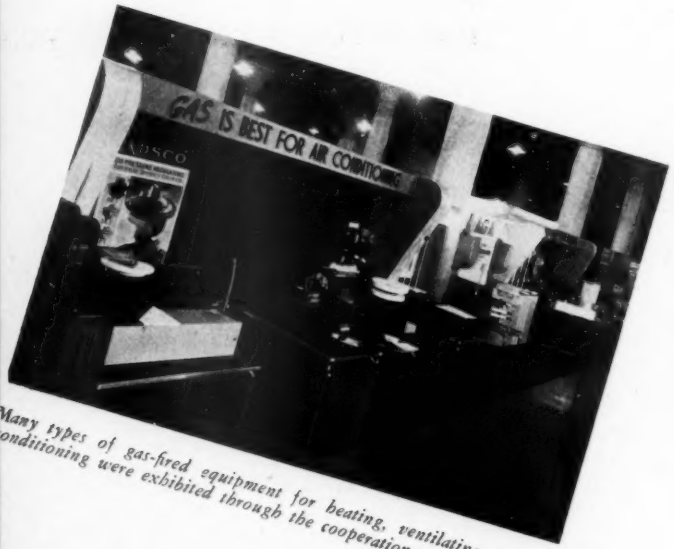
Gas Scores at Heating Exposition

THE American Gas Association had one of the outstanding exhibits at the seventh International Heating and Ventilating Exposition held in the public auditorium at Cleveland, January 27 to 31. In two exhibit areas, with more than 2200 square feet of space, 42 manufacturers of all-year air conditioning units, winter air conditioning furnaces, other types of gas-fired furnaces, boilers, water heaters, a floor furnace and a space heater exhibited their products to more than 30,000 visitors at the Exposition.

The A. G. A. booths were decorated in the traditional blue and white with the symbolic mechanical gas flame serving as a beacon for the gas industry exhibits. The success of the exposition was evidenced by the continual flow of visitors through the two gas exhibit areas and the hundreds of requests received for A. G. A. publications on subjects pertaining to gas heating.

One reason for the success of the A. G. A. part of the show was due in a large measure to the cooperation of The East Ohio Gas Co., who had home service representatives on duty at all times. These young women were of great help in answering thousands of questions put by visitors and in taking the requests for additional information which was either relayed to respective manufacturers involved or to A. G. A. headquarters.

Cooperating manufacturers unanimously agreed that participating in a combined exhibit under A. G. A. sponsorship is of greatest value to the makers of gas-fired appliances.



Many types of gas-fired equipment for heating, ventilating and air conditioning were exhibited through the cooperation of manufacturers

Modern gas-fired heating and air conditioning equipment in a of the larger exhibit area of the A. G. A. combined exhi

School Lunchroom Equipment

Alert gas company promotional work needed to develop profitable market through installation of gas-fired cooking equipment in school kitchens

BY P. W. CRAIG

Manager, Industrial and Commercial Sales, Equitable Gas Co., Pittsburgh, Pa.

GAS companies have long paid particular attention to schools in their promotion work, recognizing that these institutions afford a good opportunity to influence potential customers in their most impressionable years. Most of this work is in connection with home economics courses.

But schools are important to gas utilities in another way. They represent a market for the sale of a substantial amount of gas through the school lunchrooms which they operate, or intend to operate. In addition to long-range promotion, the installation of gas-fired cooking equipment in these kitchens provides a profitable addition to the base load of the gas company.

While the details of the growth of the school-lunch program are unimportant in this discussion, it will give you some idea of the scope of the activity to know that in 1944 there were more than 31,000 child-feeding projects in operation, serving more than 260 million meals yearly. Authorities estimate that the program will expand to cover 1,600,000 additional children in 4000 schools this year and will continue to grow for the next several years.

Promotional Drive Needed

The job of gaining and holding schools as customers requires a considerable amount of promotion work, especially since most gains necessitate either the creation or expansion of lunchrooms. In this field nothing is of more importance than the work of the Home Service Department. While most companies assign the actual selection and sale of equipment to the Commercial Sales Division, the groundwork for their success can best be laid by home service.

Contacts with school personnel and officials by the home service people are more or less on a permanent basis. Demonstrations of various kinds and special classes repeatedly conducted in the schools, as well as close association with the home economics teachers, provide ample and recurring opportunities for promotion work in regard to school lunchrooms and their equipment.

In order to do this work well it is necessary for the home service personnel to have a general knowledge of the regulations under which school feeding projects must operate and to be familiar with the equipment normally used in large-volume food preparation.

The dominant voice in the whole program is that of the federal government. For several years past it has subsidized school lunchrooms on a year-to-year basis. Finally, on June 4, 1946, the President signed the National School Lunch Act (Public Law 396, 79th Congress)—putting this aid on a permanent basis and assigning its administration to the Department of Agriculture.

While the new law does not in itself appropriate money for school lunch expenditures, it does permanently authorize such appropriations, without the necessity of passing a new school-lunch bill every year. No limit is set on the amount of money which may be appropriated to defray food costs, but not more than $10 million may be spent annually for equipment. Federal funds will be apportioned among the states according to the number of children enrolled in school and per capita income of the state. The law requires, however, that the funds accepted be matched dollar-for-dollar by the state until 1951. After that year, the state contribution will be increased. Congress has appropriated $75 million for school lunch expenditures during 1947. Out of this amount $10 million may be given to schools for the purchase of school-lunch equipment.

The intent of the Act is to give the states the primary responsibility for developing their own school-lunch programs. This means that state departments of education will head up the program in all states where they are legally permitted to dispense federal funds. In states where the department of education cannot handle funds for private schools, the United States Department of Agriculture, through its state office of the Production and Marketing Administration, will work directly with these schools.

Non-Profit Basis

Public and non-profit private schools of high school level or under may apply for federal aid. The program must be operated on a non-profit basis. The lunch must be available to all children regardless of their ability to pay and without discrimination. To get this aid, the school enters into an agreement with the state agency. Food is purchased locally and reimbursement is made monthly in keeping with the provisions of the program. Purchases of school-lunch equipment used in storing, preparing and serving the food must be approved in advance for the school to be eligible for reimbursement. This is to make sure that the equipment is needed and that it is bought at a fair price.

Standards for the various types of meals have been set up by the Department of Agriculture to guarantee that pupils will receive good nourishing food, and no school may receive reimbursement unless it conforms to these

Presented at Home Service Workshop, American Gas Association, Cincinnati, Jan. 20-23.

Perspective

● A gushing Washington lady met a rector on the street one day and asked, "Tell me, do you expect the President to be in church next Sunday?"

"That," said the rector, "I cannot promise. But I expect God to be there, and I fancy that will be incentive enough for a reasonably large attendance." —*This Week*

standards. How much a school can collect for food is determined by the number and type of meals it serves. The maximum reimbursement is nine cents for each type-A meal served; six cents for a type-B lunch; and two cents for the type-C lunch. There is no reimbursement for meals for adults.

Requirements for the type-A lunch are that it must be a complete lunch, sufficient to provide one-third to one-half of the child's daily food needs and must contain at least:

(a) One-half pint whole milk (which meets the minimum butter-fat and sanitation requirements of state and local laws);

(b) Two ounces of fresh or processed meat, or its dietetic equivalent,—poultry meat, cooked or canned fish or cheese, or one-half cup cooked dry peas, beans, or soybeans, or four tablespoons of peanut butter; or one egg;

(c) Six ounces of raw, cooked, or canned vegetables and/or fruit;

(d) One portion of bread, muffins, or other hot bread made of whole-grain cereal or enriched flour, and

(e) Two teaspoons of butter or fortified margarine.

The requirements of this lunch are best adapted to a plate or tray-type service.

The protein requirements in (b) above may be met by serving one-half the required quantities of each of two proteins. One-half cup of fruit juice may be served in meeting one-half of the requirements of (c).

Type-B lunch is an incomplete lunch, hot or cold, which is less adequate nutritionally. It must contain at least:

(a) One-half pint whole milk (which meets the minimum butter-fat and sanitation requirements of state and local laws) as a beverage;

(b) One ounce of fresh or processed meat, or its dietetic equivalent,—poultry meat, cooked or canned fish, or cheese, or one-half egg; or one-fourth cup cooked dry peas, beans, or soybeans, or two tablespoons peanut butter;

(c) Four ounces of raw, cooked or canned vegetables and/or fruit;

(d) One portion of bread, muffins, or other hot bread made of whole-grain cereal or enriched flour; and

(e) One teaspoon of butter or fortified margarine.

The requirements of this lunch are designed to fit the limited functions of some schools and may be supplemented by food brought from home. The lunch may be built around a main dish (thick soup, chowder, stew, casserole or salad) including items (b) and (c) and served with milk and bread and butter or margarine. As an alternative, items (b), (d) and (c) may be used as a sandwich and served with milk and fruit and/or vegetables.

Type-C lunch is one-half pint of whole milk (which meets the minimum butter-fat and sanitation requirements of state and local laws).

That, in general, is the framework within which school lunchrooms must operate. Additional and more detailed information can be obtained from your State Department of Education or from the United States Department of Agriculture, Washington 25, D. C.

Now we come to the equipment which is needed. Unlike most of the home service cooking which is entirely done on a single piece of equipment, the domestic-type range, large-volume food preparation is accomplished on individual pieces of equipment which have been developed for each operation. Today there are more than 50 different types of this equipment available.

Of this large number, five are of outstanding importance to school lunch programs. These are: commercial ranges, ovens, steamers, steam-jacketed kettles and hot-food tables. I will discuss each of these briefly.

There are two general types of commercial ranges in use, generally described as "Institutional" and "Heavy-

Lunchroom installation showing gas steamer for vegetables, open and solid-top range ensemble, and steam table in foreground

Battery of baking and roasting ovens

Duty" ranges. Institutional ranges are lighter in construction than the heavy-duty range and not intended to meet severe cooking requirements. The burners are of smaller capacity, and the ranges are not intended for use in batteries. Each one is constructed to be a complete unit. These ranges are equipped with range ovens or warming cabinets beneath the cooking top and may also be equipped with a griddle, or combination griddle and broiler.

Heavy-duty ranges, both in construction and capacity, are ideal for commercial kitchen use and for large school lunchrooms. They are made in unit sections which can be joined to form a complete battery. Individual sections are made in a variety of cooking top styles. Either an "open" or "grate" top, similar to that of the domestic range, or a "solid" top which may be heated by one of three burner arrangements to gain certain temperature conditions over the area of the top, are available.

Open top ranges are constructed with grates to hold the pots or pans directly over the burners. The grates and burners are easily removed for cleaning. This type of range is intended primarily for short-order work—since the entire heating effect is available immediately. The continuous capacity is less than that of the "solid" top range.

The three types of "solid" tops may be described as "center-fired," "front-fired" and the "uniform-heat" top. The "center-fired" top is heated by several concentric ring burners located in the center of the top. This arrangement gives the highest temperature, approximately 1000° in the center, with gradually decreasing temperature toward all sides. Top temperature can be varied by successively shutting off one burner ring at a time.

The "front-fired" cooking top is heated by burners located across the front of the range. The intense heat, therefore, is at the front, graduating to lower temperatures at the rear. Thus, after quick boiling in the front vessels can be moved to the back of the top to simmer or to be kept at serving temperature, leaving the front available for other work.

The "uniform-heat" top is heated by bar burners spaced evenly under the top which gives the same all-over top temperature. The top is divided into two sections with each section individually controlled so that one-half can be operated at the high temperature and the other half at some intermediate temperature. It is claimed that the uniform heat top will do four times the cooking that the "center-fired" hot top range does.

The "fry top"is a solid type designed for the special purpose of volume frying of foods. The heavy-cast polished fry-top has a coved back and right-angle side edges which help prevent grease spillage. A grease trough is provided to carry the excess grease into a receptacle. The top is heated by two double bar burners, each separately controlled.

Close-up of roasting ovens

Battery of heavy-duty ranges. Roasting ovens at right

Beneath the range top, either an oven suitable for roasting and baking or a storage cabinet may be supplied. Other appliances, such as a combination broiler and griddle, roasting oven or deep fat fryer, are made to the same dimensional standards as the ranges, so that they may be incorporated directly into a range battery. Spreader plates are available to provide additional working space between range sections. Extensions or attachments, usually about one-half as wide as a range section, may be installed at either side of the range section or between two sections. These extensions are available with open tops, solid tops, or fry tops. You can see that there is a wide variety of arrangements from which to choose.

Most school lunchrooms need more oven capacity than the amount provided by the ovens underneath the range tops. And, in most kitchens, the use of ovens below the cooking top interferes with cooking operations. Consequently, ovens as separate units are very desirable.

There are two general types of ovens in this class. The range oven type and the individually controlled deck oven. The separate range ovens are usually constructed in pairs, one over the other. They are designed for installation in batteries with heavy duty ranges and are constructed with insulation and individual heat control.

In commercial kitchens preference is usually shown for the individually controlled deck ovens, for they have a larger capacity and permit greater flexibility of operation. Each deck of these ovens is heated by a separate set of burners. Thus, different types of food requiring different temperatures—such as rolls, pies and cakes, as well as meat—can be prepared simultaneously. Decks intended for baking are from 7 to 9¼ inches high, while those used for roasting are from 11½ to 12½ inches.

These ovens are usually constructed in sections, so that baking and roasting decks may be combined in any desired arrangement. They may be obtained with a thick tile lining at extra cost or with the regular heavy gauge steel lining. The tile lining is desirable for certain types of use, especially where the food is to be baked directly on the floor of the hearth. The steel-lined oven preheats faster and is less expensive initially. For the small lunchroom where only a single oven is required a 12-inch deck or roasting oven should be provided, fitted with a removable rack which can be used to divide the deck into two six-inch baking decks.

These deck ovens are heavily insulated and thermostatically controlled, permitting baking and roasting at any desired temperature above 250° F. The heavy doors are counter-balanced so that they are easily opened and closed. The doors open to the level of the hearth, providing a convenient loading rack.

The steamer, or steam cooker, is a ruggedly built piece of heavy duty equipment in which foods, such as vegetables, fruits, fish, cereals and eggs are cooked by live steam under five to seven pounds pressure. It is claimed that cooking with steam retains more of the nutritious elements in the food, and that steamed foods shrink less. Meats and other foods may be conveniently heated in the steamer. Single-compartment to four-compartment models may be obtained with capacities ranging from four bushels to eight bushels. Steam is furnished from a central steam supply or generated by a built-in evaporator which is fired by gas.

Steam-jacketed kettles are another necessity. A steam-jacketed kettle consists of two shells, one slightly larger than the other, fitted together with a space between for the flow of steam. There are three types of steam-jacketed kettles; the deep type, the shallow type and the trunnion or tilting type. The deep type has a double shell two-thirds of the height. It ranges from 10 to 300 gallons capacity. Syrups, soups, stews, vegetables, cereals, etc. are quickly and easily cooked in these kettles.

The shallow type has a double shell almost to the edge. It is used in kitchens having ample floor space and ranges from five to 150 gallons capacity. In this type it is possible to cook vegetables without water and to pot roast meats, in addition to those uses listed for the deep type.

The trunnion or tilting type is deep, has a double shell to about two-thirds of its depth and a pouring lip. It is tilted for emptying. Capacity ranges from 2½ to 100 gallons and is used mostly for gravies, custards, sauces, fillings, etc. Kettles are designed for not more than 40 pounds steam pressure, but in cooking most foods 20 to 25 pounds produces satisfactory results.

Modern gas hot food tables are waterless and provide food storage with minimum spoilage. These tables are available in any desired top length and arrangement. Thermostatic control insures that food is kept at the preferred temperature at all times. Sections of the table may be *(Continued on page 146)*

Review National Gas Advertising Objectives for 1947

Committee on National Advertising and account executives of advertising counsel at a meeting in New York, January 28. Seated, left to right: R. G. Barnett, H. P. J. Steinmetz, R. E. Ginna, D. P. Hartson, J. J. Quinn, R. G. Taber. Standing, left to right: C. S. Stackpole, J. W. West, Jr., H. S. Christman, W. M. Jacobs, W. B. Hewson, C. W. Person, Emil Hofsoos, J. P. Leinroth and R. M. Alderman

Movie star Carole Landis finds modern gas range ideal for baking

Building Better "CP" Gas Ranges

Intensive and comprehensive research program by A. G. A. and manufacturers is designed to maintain and advance present superiority of gas cooking

BY PAUL I. BERNO

Development Manager
The Tappan Stove Co.

MOST everyone would like to know what is being done to keep modern gas ranges built to "CP" standards in their present enviable position of leadership in the cooking appliance field. The gas range industry, while wrestling with today's problems of production, at the same time is knee-deep in research for tomorrow's even greater gas range.

The "CP" program has demonstrated what great good the gas industry can do for the public and itself by achieving higher and higher standards of gas range performance and vigorously merchandising to the public the superiorities of gas cooking. But to do that demands relentless research to uncover and cultivate new methods of continuously improving gas range performance. That research is carried on largely under two separate categories: first, the American Gas Association Testing Laboratories conduct fundamental research on basic problems common to the entire industry, and second, the individual manufacturers carry on their own private research programs on whatever scale they may individually consider best for themselves.

Under the current Domestic Gas Research Program of the American Gas Association there are eight projects pertaining to cooking. Very substantial sums have been appropriated to cover the cost of these research projects.

The findings to date on some of these projects are covered in various A. G. A. bulletins which I will enumerate. Since many of you have already read these bulletins, and those who have not may easily obtain them, I will not attempt to review them here, but merely call them to your attention.

The two A. G. A. research projects on oven cooking are covered by Bulletins 33, 35 and 39, and another is now in the course of preparation. These bulletins are furnishing the industry with valuable information on the improvement of oven performance.

Broilers, likewise, are the subject of intensive study, there being two research projects under way at the present time on this subject. Two bulletins covering this work are in the preparatory stages, but neither has as yet been published.

Many very interesting pieces of equipment are used in conducting this research. Perhaps the most essential device is a group of nine parallel connected thermocouples each imbedded in a copper disc which is blackened with manganese dioxide so as to react to radiant heat—making possible the measurement

Presented at A. G. A. Home Service Workshop, Cincinnati, Ohio, January 21.

of radiated as well as convected heat. To study heat distribution, special iodized sheets are used. To simulate the condition of moisture normally caused by broiling, of interest because it tends to smother combustion, a shallow pan of water is used. A special machine is employed to slice specimens of broiled meat to a thickness of only a few millionths of an inch. These specimens are placed under a photographic microscope so that enlarged photos can be made showing every minute meat particle and cell.

While this device revealed valuable information as to what happens during broiling, no scientific gauge of meat quality—as checked against actual taste tests by numbers of people—has been found. The despairing engineers have concluded that tastes in broiled meats varied just as widely as tastes in women's hats.

With the practice of broiling becoming more popular day by day, this A. G. A. research in broiling is of major importance. It is expected to result in gas range broilers that are second to none.

No research program would be complete without a lot of attention to top burner design. It is recognized that gas ranges differ from ranges of all other kinds in that they require grate fingers that are raised some distance above the table level of the range. This difference in level is often objectionable and it is highly desirable that it be reduced or eliminated. The purpose of one research project is to determine how that can be accomplished without interfering with the proper combustion of the burner flame.

A thorough research program must go beyond the range itself. The range is but one unit of what we might term a food preparation machine commonly known as the kitchen. To make cooking a thoroughly enjoyable experience, we must be sure that not only does the range itself perform flawlessly, but also that the atmosphere in which it is used is pleasant. The New Freedom Gas Kitchen which has been promoted with such success during the past year would scarcely be complete unless it were adequately ventilated because heat, cooking vapors and odors are inherent in almost every cooking operation, regardless of the kind of fuel used.

Research on the kitchen ventilation project is devoted to finding the optimum relationship between air withdrawal and removal of heat, moisture and odor. To remove completely these undesirable conditions, particularly odors, would require such a high rate of air withdrawal that objectionable noise and drafts would be caused and in cool weather a serious heating problem would be created. In order to study this problem, and others connected with kitchen ventilation, three model kitchens have been set up at the A. G. A. Testing Laboratories. Tests have shown that at least 50 percent of the cooking heat, and under certain conditions as high as 70 percent of it, and 98 percent of the excessive moisture resulting from cooking can be removed by exhausting 300 cubic feet of air per minute. For an average size kitchen, this is equivalent to a complete change of air every 3 to 5 minutes. It can be accomplished by a relatively small blower or fan. While exhausting air at this rate does not completely free the kitchen of odor, it does prevent odors from spreading to other parts of the house. As a matter of fact, it is found that many housewives actually wish to have cooking aromas such as that of boiling coffee, discernible in the kitchen as an aid to cooking control.

One of the most important advantages of kitchen ventilation is the removal of cooking vapors which, if unarrested, quickly stain kitchen walls and furnishings. It is necessary to know, however, the rate of condensation of these vapors in ventilating ducts, as an excessive accumulation might constitute a fire hazard. So, of the three kitchens being used for test purposes in Cleveland, one is not ventilated, and the other two are each ventilated in a different manner to provide comparative data on ventilated versus non-ventilated kitchens, and also on the merits of different systems of ventilation. A program of cooking is carried out daily in all three. It is expected that in six months we will gain experience equivalent to one year of ordinary use.

Technical data on this project is given in Bulletin 40 entitled, "A Study of Various Methods of Kitchen Ventilation." At the completion of the current

Cutting cake samples for comparison

Checking baking results with different thermostats

vapor removal experiments another bulletin will be published covering the construction of kitchen ventilating systems, periodic cleaning, fire prevention measures, and showing the comparison of grease deposits in ventilated and non-ventilated kitchens, as well as in the kitchen ventilating systems being employed.

It is interesting to know that the gas industry is not alone in its interest in kitchen ventilation. A manufacturer of electrical ranges and refrigerators recently devoted three pages of one of its monthly publications to an article on kitchen ventilation written by an associate professor at the University of Wisconsin. Likewise, a recent circular of the Small Homes Council of the University of Illinois included a discussion and diagrams on this subject.

Because it is a common belief that moisture condensation in homes in cold weather is caused by gas cooking, experiments are being conducted at Purdue University under the sponsorship of A. G. A. to determine the causes of moisture condensation. The experiments conducted to date show that taking shower baths, doing the laundry, and mopping the floor create far more moisture than cooking. The breathing of the occupants of a house, and even of plant life, is another source of moisture. Excellent progress is being made in this study, and findings are being substantiated by actual "cures" being worked on moisture ridden homes during this present winter. A bulletin reviewing the complete results of this winter's experiments will be issued some time next summer.

And finally, not satisfied with merely improving the performance of gas ranges, as we know them today, the A. G. A. has included in its Domestic Gas Research program an "exploratory" project entitled, "Engineering Paper Study of Possible New Methods of Applying Gas to Cooking." This project has been assigned to the Institute of Gas Technology in Chicago. A total of six radically new methods of using gas in the kitchen were considered and two were found to be sufficiently promising to justify thorough study. Because of the nature of this project, findings to date are as yet confidential. There is good reason to hope, however, that out of this research will come a new means of cooking which will not require burners of the kind we know today and which will set new standards of safety and performance in gas ranges which even today are as yet undreamed of.

And so, we see that the A. G. A. has under way an intensive and comprehensive research program in gas cooking to assure us that gas cooking will continue to lead its field as it does today.

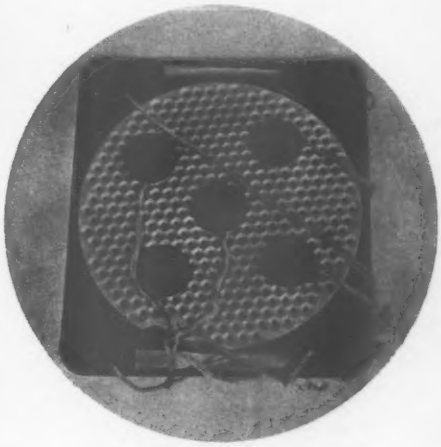
Of course, in addition to the research program of the Association, most of the individual range manufacturers are carrying on their own programs to advance the standards of the industry as well as to improve their own standing within the industry. Naturally, these manufacturers do not tell us in advance what they have "up their sleeves" but it is safe to assume that each is striving constantly for faster and more efficient burners, improved burner ignition, cooler exteriors, easy to clean construction, more accurate and dependable controls of every description, and finally, more pleasing styling.

What are some of the outstanding features of the 1947 gas ranges built to "CP" standards? Generally speaking, they are larger, roomier and more handsome, of course, than their prewar predecessors.

One of the major improvements, which is not apparent at a glance, is the construction of the body itself. Prewar bodies were composed usually of a great many separate pieces such as the base skirts, the main bottom, a back, two sides all bolted together, and doors on the front. The doors and front parts usually were enameled, the sides enameled or synthetically finished, and the back base and other parts enameled or finished in black japan. This construction obviously called for a lot of "fitting" which usually resulted in a very well assembled range, but occasionally failure of one part to be of exact dimensions would cause a poor fit of doors or other important parts. Or, even if the range left the factory perfectly assembled, rough handling in shipment might jar the parts out of line, causing them to fit poorly when the range was installed in the user's home.

Most of today's ranges therefore are built with what is known as a "unit

Kitchen ventilation project at A. G. A. Laboratory



Artificial steaks check broiling speed

body"—that is, all parts are welded together while in a precision jig that lines up all pieces very accurately, so that the range is not only accurately assembled at the very start, but is also rigidly welded together so that no amount of rough handling will throw any part out of line. Furthermore, the completely welded assembly is then enameled as a unit, giving all parts the permanent protection of a porcelain finish. Thus today's ranges are stronger, assembled to finer tolerances, and longer-lived because of all-porcelain finish.

Another earmark of the modern gas range is the one piece construction of the table surface and back rail. This construction eliminates the ugly crack that formerly divided the two pieces and gives us in its place a smooth curve that cannot catch spoil of any kind and is very pleasing in appearance as well as easy to keep clean.

The round, non-clog top burners used on all gas ranges today are a distinct improvement over the so-called "star" burners found on ranges still in use in many homes. The ports, being horizontal or nearly so, rather than vertical, cannot be clogged from spill-overs. The burners are light, and relatively easy to remove and handle for cleaning. They are placed in the range very close to the bottom of the utensil so that more of the heat goes into the cooking than with the old type burners which were placed so far from the utensil that much of the heat was wasted around the sides and served only to raise the temperature of the kitchen. They are, of course, self-lighting, at the turn of a valve and many ranges are equipped with either double throats or two-way valves for fixed simmering position.

An ever-important feature of any modern gas range is its porcelain finish. Porcelain, as we all know, is only a form of glass fused onto steel. Consequently, it must be treated with the same care given other kinds of glassware. A sharp blow will chip porcelain, just as it breaks any kind of glass. If a porcelain part is wiped with a damp cloth while the enamel is quite hot, the porcelain will be chilled and contract more rapidly than the steel beneath it, eventually causing craze marks. Therefore, our gas range owners should be cautioned against wiping porcelain while it is warm. Likewise, the use of gritty powders in cleaning porcelain will "scour" it, causing many fine ridges which will spoil the luster and collect dirt. There is rarely any need for cleaning porcelain with anything more harsh than pure soap and water. The porcelain on the table surface of most of our modern gas ranges is acid resisting, so that it will not be stained by fruit juices or milk as ordinary porcelain might be. Therefore, the porcelain on a range will render excellent service for a great many years if it receives only the ordinary care to which every piece of good equipment is entitled.

Automatic oven ignition is always a point of interest to the prospective purchaser. Every range bearing the "CP" seal must have this feature.

While there are different methods of furnishing automatic oven ignition, the one used almost universally today employs a constant burning pilot in the oven. The oven is further equipped with a safety device which, should the oven pilot be extinguished for any reason, prevents any gas from entering the oven burner. It is the cost of this special device that accounts largely for the additional cost of automatic oven ignition over a range requiring manual lighting, and it is also the shortage of this type of device throughout 1946 that made it difficult to obtain a delivery of "CP" ranges.

"Single-Point Ignition"

The manufacturers have done a great deal of research in an effort to obtain automatic oven ignition without a constant burning pilot, endeavoring primarily to ignite the oven from one of the top burner pilots. This method is known as "single-point ignition." It has been perfected to the point that it works quite satisfactorily on manufactured gas, but a suitable method of adapting it to natural or LP gas has not yet been found. This is due to the fact that manufactured gas is relatively light and rises readily to the *(Continued on page 155)*

ELECTRONIC COOKING NO THREAT!

● Your customers may ask "When will we be seeing those fantastically new postwar ranges we have been reading about that will roast a chicken in 7½ seconds? A question of that sort should not be ridiculed, because some of our most reputable periodicals have been publishing stories just like that. The answer is that ranges could be built today to roast chickens in 7½ seconds. They would be all-electric, a potentially serious threat to the gas cooking load. But are they? Well, let's look at some of the practical limitations.

In the first place, let's suppose the housewife accidently applies the current to her chicken just *three seconds* too long; it would be the same as if she had let it roast a half hour too long in the oven—probably burned to a crisp! She would certainly want to carry a good reserve supply of chicken in her freezer to take care of emergencies like that! Now, true, automatic timing devices could be provided, but it would be difficult to instruct the housewife on the correct setting for different kinds of chicken. The roasting time, instead of being governed by size and weight of the fowl as it is in today's range, would depend on how fat or lean the chicken would be, and that, we realize, would be very hard to judge. If electronic cooking ever became popular, our school courses in dietetics would have to be changed to courses in dialectrics!

But, granting that this problem of timing could be solved, the roasted chicken still would not have the appetizingly brown exterior that is the source of so much pride to the cook—in fact, the surface would be cooked no more than the innermost portion, because electronic cooking cooks, literally, from the inside out! Bread properly baked electronically is as white as the original dough.

So the wise housewife will certainly keep her prewar gas range at some handy place in the basement where she can run down to really brown things well when she wishes to please her family or guests!

Worse yet, the electronic range will roast, and that's all—period! It won't broil, fry, stew or boil—it won't even heat water! You'll have to find some other way to make your coffee. Yet it'll be an expensive piece of equipment—today it would cost at least $1,000, and every now and then you'll have to buy costly new tubes, just as for your radio. It will take up far more space in your kitchen than today's range. And you will need heavy wiring for your house far in excess of that required for even the largest of today's electric ranges. Finally, something will have to be done, too, to keep the electronic range from drowning out your favorite radio program with a shrill whistle while the range is in operation. It is possible that some commercial applications for electronic cooking may be perfected in the not too distant future for cooking on a "mass production" basis. But for homes, the new 1947 gas ranges built to "CP" standards undoubtedly will have served long and distinguished lives before they can be replaced with electronic models, if, indeed, that time ever comes.—*Paul I. Berno,* Tappan Stove Co., at A. G. A. Home Service Workshop.

Try This Hollywood Recipe

TAKE the title, "It Happened on Fifth Avenue." Add Hollywood producer Roy Del Ruth. Mix with stars Don DeFore and Ann Harding. Sweeten with Gale Storm. Drop in large dashes of Charlie Ruggles and Victor Moore. Stiffen with situation-comedy. Top off with modern gas refrigerator and two gas ranges. Serve to public. Delicious!

Charlie Ruggles is the wealthy owner of a large Fifth Avenue home in the new Hollywood offering, "It Happened on Fifth Avenue." Victor Moore is the lovable old tramp. With the support of those dependable character actors, Gas Refrigerator and Gas Range, they really steal the show. Some of the movie's best sequences occur in the kitchen where Gas Refrigerator and Gas Range have enough full-front shots and time-on-the-screen to give their usual sterling performance.

"It Happened on Fifth Avenue" will be released by Allied Artists during Easter Week. At a recent "sneak" preview it was adjudged a sure-fire hit. Meanwhile, the American Gas Association as agent for Gas Refrigerator and Gas Range is laying out a well-rounded campaign for these two stars. A promotional plan will be issued soon so that local gas companies can tie-in with the showing of this picture in their territories.

Demonstration Kit Is Dealer Promotion Aid

Handy home service package with 71 pieces contains all equipment that is needed for quick and efficient use

BY MARY E. HUCK

Supervisor of Research, The Ohio Fuel Gas Co., Columbus, Ohio

THE dealer promotion program in our company provides that we will offer any home service help to the dealer that we offer our own sales department. The dealer is free to have one of our home service advisers give a demonstration on one of his ranges either in our auditorium or in his store. It was for the demonstrations which are given outside of the gas company offices that our dealer kit was planned.

We felt that once our dealer program got in full swing and our girls were much in demand for demonstrations outside our auditorium it would be wise to have some means for packing and carrying the equipment which they would need to use.

We wanted something which would be permanent—something which would be ready to go at any time. Such a kit would contain all of the equipment which would be used in the demonstration so that it would not need to be assembled each time the home service adviser went out on a cooking school. By having a separate set of equipment for this one purpose there would be no need for checking it every time to make certain it was all there.

We feel that these advantages outweigh the one inconvenience of the kit. It is heavier than a home service girl likes to lift and carry. I think, though, that in almost any office she could find an office boy or janitor to load it in her car and the dealer could then be responsible for getting it into his store. By having a kit much smaller than this you would lose too much of the space which is needed for equipment as well as the flexibility which this case offers for the rearrangement of equipment for future demonstrations. Perhaps when materials again become plentiful, the kit could be constructed from lighter materials than plywood.

Any one who has carried demonstration equipment in a trunk knows what a chore it is to pack one of them and how awkward they are to transport. We felt that this kit is easier to pack, much more conveniently handled, and carries an amazing variety of equipment.

First we planned a sales-slanted demonstration to cover each section of the range so that it would be easy to stress the special features of the equipment which the dealer sells, and then included in the kit all of the equipment which would be needed in carrying out this demonstration. To these utensils we added other miscellaneous equipment which would be useful in additional demonstrations.

In planning this kit we found it best first to select the basic utensils needed and then build the kit to fit them. The interior of the *(Continued on page 155)*

Plywood display kit for dealers is convenient size for handling

Each piece of equipment has its own position. Packing is easy and no space is wasted

Everything needed for a dealer demonstration is included here—71 pieces in all

Presented at Home Service Workshop, American Gas Association, Cincinnati, Ohio, Jan. 20-23.

"Attractive Nuisance" Liability

In general, company cannot be held responsible unless contrivance involved is ruled artificial and uncommon, attractive and dangerous, and readily accessible

BY MILFORD SPRINGER

Assistant Counsel, Southern California Gas Company, Los Angeles, Calif.

"Attractive Nuisance" Doctrine

A TRESPASSER comes on one's property without privilege or consent, so it is the general rule that one must merely refrain from causing intentional or wanton injury to him, and there is no duty to keep the property in safe condition or to carry on activities carefully.[1] The "attractive nuisance" doctrine, which involves children, is a qualification of the general rule that the property owner owes no affirmative duty of care to a trespasser. In 1891, California adopted the humanitarian view, and held that a railroad turntable, although fastened in the customary manner, is an "attractive nuisance" and that the owner must pay damages for injuries sustained by a child while playing on it even though it was set in motion by the negligent act of other boys.[2]

The doctrine involves the balancing of opposing conveniences; and children are considered social assets, so a duty of care is imposed on the property owner without placing an unreasonable burden upon him or his right to make a beneficial use of the property. Also, the doctrine is consistent with the old common-law duty to refrain from wilful injury to a trespasser, which made the property owner liable for the maintenance of a concealed danger or trap into which he might reasonably anticipate that others might fall.

Duty of a Utility

A child of tender years is expected to exercise only such care and self-restraint as belongs to childhood, or specifically, to minors of like age, mental capacity and discretion. A reasonable man must be presumed to know this, so he is required to act accordingly, and in proportion to the lack of judgment on the part of children the care observed toward them by him must be increased.[3]

One who places an attractive but dangerous contrivance in a place frequented by children, and having reason to believe that children will be attracted to it and consequently subjected to injury, owes the duty of exercising ordinary care to prevent injury to them, because he is charged with knowledge that children are likely to be attracted to the contrivance and are usually unable to comprehend and avoid the danger into which he thus allures them.[4]

Actual notice that children are in the vicinity of the dangerous contrivance is not essential to place liability on the property owner.[5]

A California Court has said that "it is as much a want of ordinary care for a person to fail to use his mind and anticipate an obvious danger to another, as it is for him to fail to use his sight and see an apparent danger to another."[6]

Do You Know?

Courts have ruled that five of the ten causes of injury listed below are "attractive nuisances." Do you know which were so ruled?

CONTRIVANCE	"ATTRACTIVE NUISANCE"
Automobiles and Trucks	[ ]
Cave-in Possibility	[ ]
Electric Wires	[ ]
Gas Pipes	[ ]
Gas Leak	[ ]
Retaining Wall	[ ]
Storage Tanks	[ ]
Hot Tar	[ ]
Winch	[ ]
Gas Well	[ ]

For correct answers see page 129.

Some limitations, however, have been placed on the doctrine, and the contrivance must be artificial and uncommon, as well as attractive and dangerous.[7] Also, it must be easily safeguarded without impairing its usefulness for the purpose for which it was designed.[8] In addition, the contrivance has to be readily accessible.[9]

A property owner must exercise the care of an ordinarily reasonable or prudent person, but is not an insurer against injuries to children, and is not required to guarantee the safety of such trespassers.[10]

A minor is bound to exercise his intelligence, and if he comprehends the peril he must use such care to avoid injury as fairly may be expected from children of his age and physical and mental capacity. For example, a 12 year old boy knew the danger of igniting powder and was denied damages for injuries from the resulting explosion, because he was guilty of contributory negligence.[11]

"Attractive Nuisances"

A variety of machines, appliances, materials and contrivances have been classified as "attractive nuisances" by the courts. Here are a few examples, which should be pertinent to gas and electric utility activities.

In a residential district, employees quit work for the day and left a two-wheeled hot tar vat on the street. A seven year old boy stepped on the rear platform and started to stir the boiling tar with a stick that was left in the vat between its side and the cover. The boy's weight over-balanced the vat. Hot tar poured over him and burned him to death. The contrivance was found to be an "attractive nuisance" and a judgment for damages was affirmed by the appellate court.[12]

In the construction of a pole line, dynamite caps had been used in connection with blasting the pole holes

Presented before the Safety Committee of the Pacific Coast Gas Association at Santa Barbara, Calif., on January 16.

along a right of way. Two empty wooden boxes and some loose dynamite caps were scattered on the ground in plain view of children in the vicinity by the construction crew as it progressed. A 12 year old boy from the construction camp was attracted to the boxes and caps, and was injured while examining dynamite caps for the first time. The appellate court applied the "attractive nuisance" doctrine.[13]

During the construction of a building, contractors obtained a city permit to place building materials on the sidewalk. A wooden box was made to hold caustic lime, which was delivered on the job already mixed. A boy 12 years of age threw some of that lime at a streetcar and injured a passenger, ultimately causing the removal of one eye. The injured man was given a $16,000 judgment against the contractors under the "attractive nuisance" rule.[14]

Lumber, Pipe and Poles

Negligently piled lumber, from which trespassing children have received injuries, has been classified as an "attractive nuisance."[15] The reasoning in the lumber pile cases might be applied to pipe or poles stacked in an unsafe manner if a trap or concealed danger is created.

A natural gas pipeline ten inches underground had a leak, which was accessible to children. Inspection was inadequate. One child ignited the gas, and a girl of six was burned when her clothes caught fire from paper nearby when the gas was lighted by her companion. The Louisiana court found this gas leak to be an attractive and dangerous thing, invisible and odorless, but highly inflammable, and held the company liable for the child's injuries in the amount of $5,000.[16]

Due to the nature of electricity, and its existence as a concealed danger, a relatively high degree of care has been imposed on the utility handling it. Under the "attractive nuisance" doctrine, utilities have been held liable for damages to minors who reached the steps on the electric pole easily and climbed within reach of high-voltage wires with consequent injuries.[17] It is the duty of the utility also to make reasonable inspections to determine whether charged wires are hanging loose or the insulation deteriorated with consequent hazard to others.[18]

Other Classifications

The attraction must be such that children do not appreciate the danger, and therefore natural, common and familiar dangers are excluded from the operation of the "attractive nuisance" rule. For example, an unguarded pool of water or reservoir, whether natural or artificial, is excluded, because the danger of drowning in it is apparent even to a child old enough to be permitted by his parents to play unattended in the vicinity.[19] Of course, if a body of water contains an artificial concealed peril the "attractive nuisance" rule applies. For instance, $6,000 was awarded for the death of a five year old boy, who fell into a shallow canal which had a large, concealed and unguarded syphon at the bottom, into which the boy slipped and was drowned.[20]

A large, open and unfenced excavation on the owner's premises 22 feet from the street has been excluded from the rule.[21] But this situation must be distinguished from the cases in which damages are awarded for injuries caused by dangerous and negligently maintained excavations on the sidewalk or in a public street to persons who have a right to be there.[22] Also, an unguarded and hidden excavation in the nature of a trap, such as the stope in the tunnel of a mine, into which an 11 year old boy fell and was killed, has been held to be an "attractive nuisance" making the company liable for damages.[23]

A properly maintained fire escape, although attractive to venturesome children, has been excluded from the "attractive nuisance" doctrine.[24] The majority rule is that the property owner is not liable for injuries to trespassing children who jump or fall from useful, non-defective and stationary structures reached by climbing; such as, abutments, buildings under construction, fences, ladders and steps, roofs, scaffolds, storage tanks, and walls.[25]

The "attractive nuisance" doctrine has not been extended to cover the lawful operation of vehicles in common use on public streets, such as vans, automobiles, trucks, tractors and road-conditioning machinery.[26]

When a Utility Should Safeguard an Attractive Contrivance

California applies the humane rule, which makes it probable that, in cases of doubt where a trespassing child has been injured by a novel, attractive and dangerous contrivance, the owner of the contrivance will be held liable by the courts and ordered to pay damages. It is, therefore, suggested that, when the answer is "yes" to each of the following questions as applied to a particular contrivance, action should be taken to safeguard it, if the utility has not already accomplished this, to the extent that a reasonably prudent person would do so. Most of the attractive nuisance cases involve children under 10 years of age, so your precautionary test might be geared with foresight to the intelligence and tendencies of that age group.

Ingredients of "Attractive Nuisance"[27]

1. Will children be attracted to the contrivance?
2. Is there reason to anticipate the presence of children in the vicinity of the contrivance?
3. Is the contrivance accessible, uncommon, artificial, and a concealed danger to children?
4. Would a child be unable to appreciate and avoid the concealed danger, so that there is a strong likelihood of accident?

Your Alibi?

● George Neely never had any particular energy until a shot gun carried off one arm. Then he became one of the most remarkable athletes ever entered in an American college.

Or, consider Walter Schroeder, a Kansas boy who, after losing a leg trying to save a small sister from a burning building, plays on a basketball team, making 11 points in one game with his left hand because he has to hold his crutch in his right.

Or take Emory Moyes, an Ohio lad with infantile paralysis, who pitched for his Germantown High School team sitting down and won 17 games in a row with an average of eight strikeouts.

And then there was Louis Pasteur, who was so near-sighted he could not find his way around his own laboratory without his glasses. There was Wm. Pitt, one of England's ablest statesmen, who bullied Parliament with his crutches.

There was Beethoven, stone deaf, writing his superb "Missa Solemnis" and "Ninth Symphony." And there was Helen Keller, without hearing or sight, graduating with honors from Radcliffe College.

Now, what's your alibi?

—The Advertiser's Digest

5. Is it practicable to install safeguards, or otherwise prevent the exposure to danger without impairing the usefulness of the contrivance?

The human element in these cases makes it impossible to develop an infallible classification. However, from the reported California cases, and cases in other States applying the humane rule,[28] the following gas and electric utility guide has been developed with reference to the nature of the attraction and the cause of the injury:

Contrivance	*"Attractive Nuisance"*
Abutments	No
Automobiles and Trucks	No
Block and Tackle	Maybe
Blow-off pipe	Maybe
Bosin Chair	No
Bridge	No
Buildings under Construction	No
Canal	No
Cave-in Possibility	Yes
Chemicals	Maybe
Cofferdam	No
Cogwheels	Yes
Conduit	Maybe
Dam	No
Derrick	No
Drainage Ditch	No
Door	No
Electric Poles and Steel Towers	Yes
Electric Wires	Yes
Elevators	Maybe
Excavation	Maybe
Explosive Substances	Yes
Fire Escape	No
Flywheel	Yes
Gas Leak	Yes
Gas Pipes	Maybe
Gas Well	No
Guy Wires (Loose)	Maybe
Hoisting Apparatus	Maybe
Hot Tar	Yes
Hot Water	Maybe
Ladder	No
Lime (Caustic)	Yes
Lumber Pile	Maybe
Machines	Maybe
Manhole	Maybe
Man Lift	Maybe
Molten Lead	Yes
Oil	Maybe
Scaffold	No
Platform	No
Pond or Reservoir	No
Power House	Maybe
Pulleys	Maybe
Pump House	Maybe
Retaining Wall	No
Revolving Shaft	Yes
Roof	No
Rope	No
Rubbish Dump	Maybe
Sand Pile	No
Shelves	No
Shed	No
Sidewalk Covering	No
Skid	Maybe
Stairway	No
Storage Tanks	No
Tractor	No
Trees	No
Trench or Pit	Maybe
Tunnel	Yes
Ventilating Fan	Yes
Wall	No
Wheelbarrow	No
Winch	Yes

In the foregoing guide, if the contrivance is classified under "Attractive Nuisance" as "Yes" or "Maybe," it is suggested that a reasonable and practicable safeguard be employed in connection with that contrivance to reduce the probability of the utility's paying damages for injury to children attracted by the contrivance. Of course, if the cost of the safeguard is out of proportion to the frequency of exposure, business judgment would probably dictate assumption of the risk.

[1] *Giannini* v. *Campodonico*, 176 Cal. 548, 550.

[2] *Barrett* v. *Southern Pacific Co.*, 91 Cal. 296.

[3] *Barrett* v. *Southern Pacific Co.*, 91 Cal. 296, 302; *Hunt* v. *Los Angeles Railway Corp.*, 110 Cal. App. 456, 460.

[4] *Cahill* v. *Stone & Co.*, 153 Cal. 571, 574; *Lambert* v. *Western Pac. R.R. Co.*, 135 Cal. App. 81, 85.

[5] *Katz* v. *Helbing*, 215 Cal. 449, 453.

[6] *Morse* v. *Douglas*, 107 Cal. App. 196, 203.

[7] *Peters* v. *Bowman*, 115 Cal. 345, 356; *Melendez* v. *City of Los Angeles*, 8 Cal. (2d) 741, 746; *Walker* v. *Pacific Electric Ry. Co.*, 66 Cal. App. (2d) 290, 294.

[8] *Polk* v. *Laurel Hill Cemetery Assn.*, 37 Cal. App. 624, 637.

[9] *Minter* v. *San Diego Consolidated Gas and Electric Co.*, 180 Cal. 723; *Hale* v. *Pacific Tel. & Tel. Co.*, 42 Cal. App. 55.

[10] *Beeson* v. *City of Los Angeles*, 115 Cal. App. 122, 132; *Wilson* v. *City of Long Beach*, 71 Cal. App.(2d) 235, 242.

[11] *Mathews* v. *City of Albany*, 36 Cal. App.(2d) 147. For contributory negligence of a twelve year old boy in "shinnying" up the vertical supports of a high-voltage steel tower, resulting in his electrocution, see *Wallace* v. *Great Western Power Co.*, 204 Cal. 15.

[12] *Morse* v. *Douglas*, 107 Cal. App. 196; 19 Cal. L. Rev. 86.

[13] *Lambert* v. *Western Pac. R.R. Co.*, 135 Cal. App. 81.

[14] *Katz* v. *Helbing*, 215 Cal. 449.

[15] *St. Louis & S. F. R. Co.* v. *Underwood*, 194 Fed. 363; see *Peters* v. *Bowman*, 115 Cal. 345, 350; c.f. *Pastene* v. *Adams*, 49 Cal. 87.

[16] *Jackson* v. *Texas Co.*, 143 La. 21, 78 So. 137.

[17] *Clark* v. *Pacific Gas and Electric Co.*, 118 Cal. App. 344; *Brown* v. *Southern California Edison Co.*, 120 Cal. App. 102; see 17 ALR 833.

[18] *Tackett* v. *Henderson Bros. Co.*, 12 Cal. App. 658, 661; *Pierce* v. *United Gas and Electric Co.*, 161 Cal. 176, 183; *Langazo* v. *San Joaquin L. & P. Corp.*, 32 Cal. App(2d) 678, 682.

[19] *Peters* v. *Bowman*, 115 Cal. 345; *Polk* v. *Laurel Hill Cemetery Assn.*, 37 Cal. App. 624; *Reardon* v. *Spring Valley Water Co.*, 68 Cal. App. 13; *Beeson* v. *City of Los Angeles*, 115 Cal. App. 122; *Melendez* v. *City of Los Angeles*, 8 Cal.(2d) 741; *King* v. *Simons Brick Co.*, 52 Cal. App.(2d) 586; 26 Cal. L. Rev. 159.

[20] *Sanchez* v. *East Contra Costa Irrigation Co.*, 205 Cal. 515.

[21] *Loftus* v. *Dehail*, 133 Cal. 214; see Sec. 24400 of the Health and Safety Code on required safeguard for an abandoned excavation; cf. *Malloy* v. *Hibernia Savings and Loan Society*, 3 Cal. Unrep. 76.

[22] *Fernald* v. *Eaton & Smith*, 40 Cal. App. 498; *Hines* v. *Milosivich*, 68 Cal. App.(2d) 520.

[23] *Faylor* v. *Great Eastern Quicksilver Mining Co.*, 45 Cal. App. 194.

[24] 9 ALR 271; 145 ALR 325; see *Marsiglia* v. *Dozier*, 161 Cal. 403.

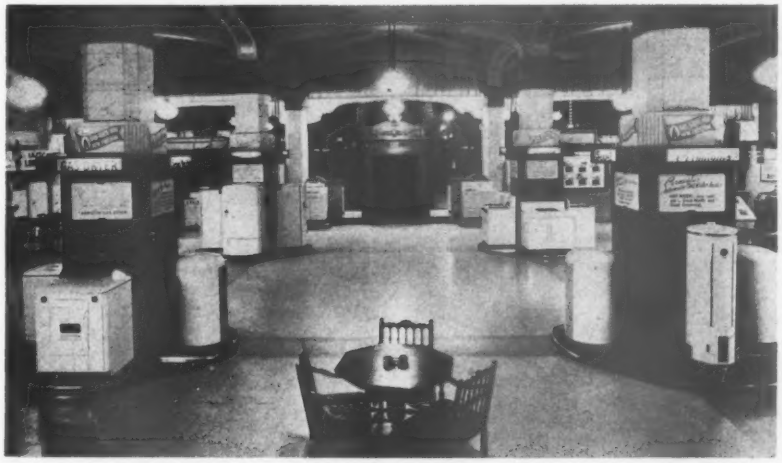
[25] 145 ALR 322; see *Camp* v. *Peel*, 33 Cal. App.(2d) 612; *Doyle* v. *Pac. Electric Ry. Co.*, 6 Cal.(2d) 550, 553.

[26] *Allred* v. *Pioneer Truck Co.*, 179 Cal. 315; *Wilson* v. *City of Long Beach*, 71 Cal. App.(2d) 235. Loading equipment for icing a refrigerator car is not an "attractive nuisance," *Hernandez* v. *Santiago Orange Growers' Assn.*, 110 Cal. App. 229.

[27] See Restatement of the Law of Torts, Sec. 339.

[28] Many cases have been compiled on the doctrine of "attractive nuisances," and for subjects not yet treated by California reported decisions, the decisions in other States, which considered a particular contrivance an "attractive nuisance," have been used in developing the guide to the probable future California decisions under the humane rule. For compilations, see 36 ALR 34; 145 ALR 322.

Hartford Gas Display Floor Modernized



Modernized display floor of The Hartford Gas Co. which employs four pillars with separate exhibits covering ranges, refrigerators and water heating, plus a laundry equipment display on the gas dryer, washer and water heater

A. G. A. Amendments Call For Enlarged Board

IMPORTANT amendments to the constitution and by-laws of the American Gas Association were approved unanimously at the January 29 meeting of the Executive Board and have been submitted to members for voting by mail prior to April 1. These provide for:

(1) Enlarging the Executive Board by nine members, including the chairman of the A. G. A. Laboratories' Managing Committee;

(2) Setting up an Executive Committee to act for the Executive Board between meetings, thus providing greater expediency and flexibility in the conduct of Association activities; and

(3) Making possible a more practical method of approving and paying bills.

Enlargement of the Executive Board is proposed in order to make it more representative of the Association's membership. If the amendments are adopted, one-half of the additional eight members and the chairman of the Laboratories' Managing Committee are expected to take office after the 1947 Annual Meeting and the remaining four new members would take office after the 1948 Annual Meeting.

A two-thirds majority vote of members is needed to amend the constitution and by-laws.

Skip Hazard

Safety Cartoon Character

THE Portland (Oregon) Coke & Gas Co. believes it has found at least a partial answer to the problem of the worker who is always forgetting safety rules. The answer is a cartoon character—you can call him "Skip" for short, but his real name is "Skip Hazard."

He was named by Martin Swenson, winner of the company's recent contest in which over 400 names were submitted. Judges C. H. Gueffroy, vice-president; John Dierdorff, advertising supervisor, and Fred Kimball, promotion manager, decided that "Skip Hazard" was catchy, easy-to-remember and carried a definite safety message.

"Skip" will appear in a series of cartoon posters.

Gas Publicity Objectives Set

Meeting of the Publicity and Advertising Committee of the American Gas Association in New York, January 28, at which 1947 publicity objectives were set. Left to right, seated: J. M. Beall, A. G. A.; R. G. Barnett, Portland (Oregon) Gas and Coke Co.; R. E. Gros, Pacific Gas and Electric Co., San Francisco; G. A. McDonald, A. G. A.; E. M. Tharp, Ohio Fuel Gas Co., Columbus, Chairman; Otto Mauthe, Southern California Gas Co., Los Angeles; and J. H. White, Jr., A. G. A. Standing: M. A. Combs, A. G. A.; W. B. Hewson, The Brooklyn Union Gas Co.; G. A. Higgins, Boston Consolidated Gas Co.; and H. W. Givan, Equitable Gas Co., Pittsburgh

PUBLICITY objectives for 1947 were set at a meeting of the Publicity and Advertising Committee of the American Gas Association which was held January 28 in New York. Under the chairmanship of E. M. Tharp, vice-president and general manager, Ohio Fuel Gas Co., Columbus, all activities of the recently organized Publicity Bureau were canvassed and plans made to strengthen this activity.

It was disclosed at the meeting that activities have been organized to cover four fields: (1) general and financial, (2) domestic uses of gas, (3) Association and industry, and (4) industrial and commercial. Each of these fields will be covered by a fulltime A. G. A. staff member who will be responsible for results in his field.

Considerable discussion centered on coordination of the publicity and promotional efforts of the A. G. A., its member companies and the members of the Gas Appliance Manufacturers Association. The need for additional publicity to support the industry's enlarged sales promotion and research program was stressed.

A new development reported at the meeting was the enrollment of 135 field correspondents to stimulate the flow of gas industry news to and from A. G. A. headquarters.

"The Dealer's Choice" Makes Bow in Brooklyn

A NEW name was added last month to the growing list of gas appliance dealer publications when The Brooklyn Union Gas Co. entered the field with an attractive, illustrated two-color magazine, "The Dealer's Choice." Importance of the publication was accented in a news story in this first issue pointing out that Brooklyn dealer sales in 1946 totaled $4,768,790—an all-time high record.

The initial number of "The Dealer's Choice" contains an impressive array of news and feature material presented in a modern slick-paper tabloid style. Human interest stories give it a highly personal flavor and several regularly-scheduled features including a cartoon strip represent notable innovations.

Permanent columns will include "Trade Talk" written by James F. Howley, manager's assistant in charge of dealer relations; "Shop Talk on the District"; and "Connection Corner." The customers' service department will develop information of special interest to plumbers in the "Shop Talk" column and "Connection Corner" will be a correspondence forum.

Aimed at strengthening the cooperative relationship between the dealers and the company, the news-magazine is produced and edited in the publicity and advertising department with Phyllis Cumins as editor.

Gas Sales Increase 6th Consecutive Month

TOTAL sales of gas to ultimate consumers in December, 1946, excluding sales to other utilities, were seven per cent ahead of a year earlier, the American Gas Association reports. December was the sixth consecutive month in which gas sales registered a gain over 1945 due almost entirely to new customers and to sales other than house heating for former customers. Actual degree days in December were approximately 21 per cent lower than a year ago.

The A. G. A. index of gas sales on December 31, 1946 stood at 182.1 per cent of the 1935-1939 average. For the twelve months ended December 31, 1946, total gas sales were 0.8 per cent ahead of a year ago.

A. G. A. Natural Gas Spring Meeting

A WIDE selection of subjects pertinent to the natural gas industry has been scheduled for the Spring Meeting of the Natural Gas Department of the American Gas Association at the Stevens Hotel, Chicago, April 30 and May 1, according to Floyd C. Brown, chairman of the program committee and president, Natural Gas Pipeline Co. of America.

Topics to be considered on the General Sessions' program include the gas industry outlook, well-head price fixing, pipe-line flow, the elimination of flare-gas wastage, research and conservation. Symposiums with a number of authoritative speakers will treat house heating load problems and underground storage.

Afternoon sessions will be devoted to open meetings of the Transmission and Accounting Committees. The program committee has urged that all hotel reservations be made direct to the Stevens as soon as possible in order to avoid disappointments.

Robert W. Hendee, chairman, A. G. A. Natural Gas Department and president, Colorado Interstate Gas Co., will preside.

Ginna on National Advertising Committee

ROBERT E. GINNA, vice-president in charge of sales of the Rochester Gas & Electric Corp., has been elected to the A. G. A. Committee on National Advertising, succeeding Herman Russell. Mr. Ginna will represent companies situated in New York State, outside of the Metropolitan New York City area, who are contributing to the national advertising program.

In announcing the resignation of Mr. Russell, D. P. Hartson, chairman of the Committee on National Advertising, commented as follows:

"Mr. Russell headed the special group which raised the funds for national advertising 11 years ago. His wise counsel, his strong faith in national advertising as a prestige-building vehicle for the gas industry and his own efforts to expand this program to its present size have all served to make his record as a committee member a most distinguished one. From the beginning, the success of this program has been a matter of personal concern to him."

LP Gas Sales Booklet Wins Praise of Dealers

AN attractive and informative sales-maker on LP gas has been issued by the Tappan Stove Company and has been sent to all of the firm's dealers.

Entitled, "Key to Kitchen Freedom with Tappan LP Gas Ranges," the booklet explains that LP gas assures modern healthful cooking and allows greater kitchen freedom for those living beyond the regular gas mains.

Relaxing F.P.C. Controls

THE Federal Power Commission is planning steps which will relax substantially its controls over improvements and extensions of facilities by natural gas companies.

Recommendations for simplification of certificate procedures relative to improvements and enlargements of facilities for serving existing customers of natural gas companies and minor new customers have been made by the staff of the Commission's Natural Gas Investigation in Docket No. G-580.

Refrigerator Wrench

A NEW wrench, specially designed for the servicing of refrigerator controls, has been made available to company service departments through the household refrigeration servicé division of Servel, Inc., according to Service Manager J. C. Kellner, Jr.

The wrench has a 7/16-inch opening to fit the seal screws of all burners formerly used on the 1947 S model refrigerator. It also fits the seal screws of the S model gas thermostat. A half inch opening fits the seal screws of all burners on the S model and a 3/8 inch opening fits the orifice spud of all burners.

"Inch" Pipelines Sold to Gas Firm

THE government-owned "Big Inch" and "Little Inch" pipelines have been sold by the War Assets Administration to the Texas Eastern Transmission Corp., Houston, for $143,127,000. Robert M. Littlejohn, W.A.A. chief, said the sale is subject to approval by the Department of Justice and the issuance of a certificate of necessity and convenience by the Federal Power Commission.

The Texas firm proposes to use the 1,300-mile tubes to deliver 425 million feet of natural gas daily to Eastern areas. The winning bid was the largest of 11 opened at a public session recently and was only $2,700,000 lower than the amount the government spent to build the lines during the war to transport oil and petroleum products from Texas to the Philadelphia-New York area.

Texas Eastern is incorporated in Delaware and has George R. Brown of Houston, as Board chairman, and E. Holley Poe, of New York as president. Mr. Poe was formerly Director of the Natural Gas Department of the American Gas Assn. and during the war was Director of the Natural Gas and Natural Gasoline Division of Petroleum Administration for War.

The company should be able to take over the lines in May, according to Mr. Littlejohn.

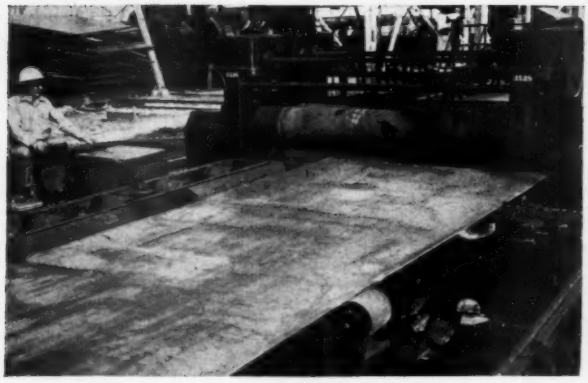
New Gas Film, "The Flame of Freedom"

Filming "The Flame of Freedom"

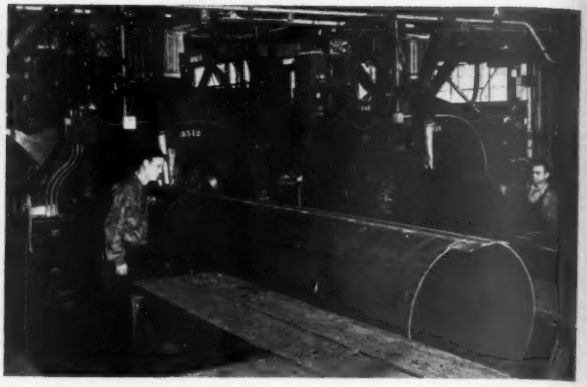
THE Flame of Freedom," a new 17-minute sound-slide-film produced in full-color by Wilding Pictures Production, Inc., will soon be released to the gas industry by the New Freedom Gas Kitchen Bureau of the American Gas Association. It is expected to provide a strong promotional medium for school groups, women's clubs, civic groups, dealer meetings, sales training courses, home service classes and similar public presentations.

The film contains 100 different pictures showing the New Freedom Gas Kitchen and has a story and running commentary built around each of the major appliances. Other important appliances such as the new gas clothes dryer are also introduced.

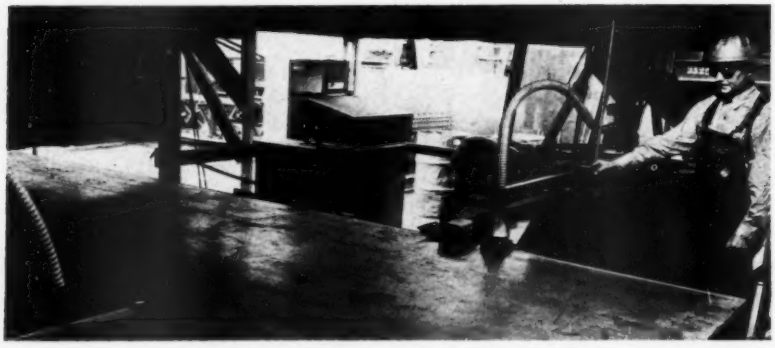
Warren Hart, who has produced pictures for many of America's leading industries, directed the filming on part of the site of the old Essannee Studios where Wallace Beery, Gloria Swanson and the Keystone Cops performed when Chicago was the film capitol of the world.



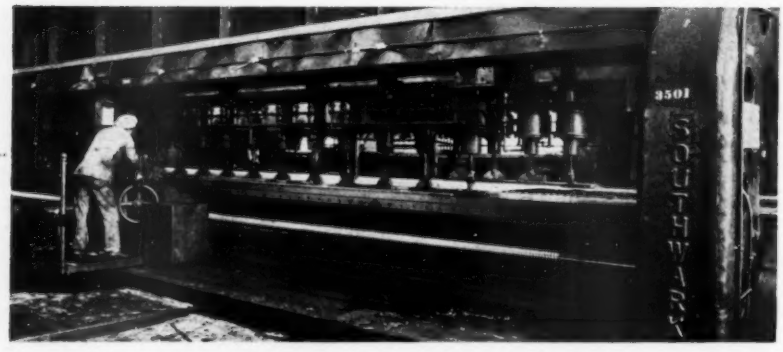
Level-rolling flat plate for "Biggest Inch"



Welding longitudinal seams by submerged arc process



Grit-blasting both edges of steel plate before welding



Planing edges of plate to true size and proper bevel

Stretching and testing pipe in hydraulic expander

Building "Bigg

West Coast plant turning
pipe designed for 305

SOUTHERN California industry is making history in the fabrication of pipe at the Maywood Plant of the Consolidated Steel Corp., where the "Biggest Inch," 30-inch Texas-California gas line, is now in the process of being rolled.

The huge steel cylinders coming off the newly installed production line represent the largest diameter "high test" pipe ever produced anywhere in the world. The method of fabrication, embodying continuous welding of longitudinal seams and hydraulic expansion of the welded sections, is new to the West Coast. Present scheduled production at the plant is nine miles a week, or about one 30 foot section of pipe every 4¼ minutes.

The pipe is to be installed between Santa Fe Springs and the California-Arizona border at Blythe, a distance of 214 miles. At Blythe it will connect with a 26-inch line now under construction by the El Paso Natural Gas Co. to bring natural gas from the oil fields in the Permian Basin, west Texas. Total length of the artery, being built to augment California natural gas reserves, at a cost of $60,000,000, will be around 1200 miles.

In the fabrication process, the pipe sections enter the production line as flat steel plates, 30 feet long and 92 feet wide.

Squaring pipe ends and machining bevel for welding

Welding circumferential seams by submerged arc process

Bigg Inch" Gas Line

urning fl plate into 30-inch, three-ton
305 mil ic feet of natural gas a day

Brush-cleaning inside of pipe sections

Trimmed and squared, they move along to a roller, where the plates are pressed into cylindrical shape. From the roller, they pass into an automatic welding machine, which welds two edges together.

At this point the pipe is somewhat smaller in diameter than 30 inches. In the next operation, the sections of pipe are stretched to the proper diameter by means of a hydraulic expander which uses water pressure to blow the pipe up to the desired size.

Before the pipe is ready for installation it is coated with coal-tar and wrapped with asbestos felt at an adjacent pipe wrapping plant.

B. M. Laulhere, Southern California Gas Co. engineer in charge of the construction of the line, stated that, while the pipeline is the largest high pressure transmission line ever built, no insurmountable difficulties are anticipated in its construction. Routine pipeline laying methods are being used, he declared.

Ultimate capacity of the line will be 305 million cubic feet a day. Gas generally is thought of as having no weight, but the amount of gas carried by the line in one day will actually weigh over seven and a half tons, a load that would require 125 freight cars if the material were solid.

Checking wrapped pipe using Holliday detector

Rolling 30-foot plate into cylinder on pyramid roll

Gas Appliances Coming in Heavier Volume

Harold Massey

GAS range manufacturers have increased production facilities appreciably over pre-war capacity, Harold Massey, assistant managing director, Gas Appliance Manufacturers Association, reports. Shortages of materials continue to hamper the industry, but if this situation eases by mid-year, production of gas ranges will exceed the 1,600,000 units produced in 1946, he predicted.

In the pre-war years of 1936-1940, sales of gas ranges averaged about 1,500,000 units a year. During 1946, in spite of problems which confronted manufacturers, they surpassed this pre-war average, though still falling short of the record production of 2,225,000 gas ranges produced in 1941, Mr. Massey said.

By mid-year in 1947, Mr. Massey predicted, there will be a growing demand for new products that will result in extra effort by manufacturers to introduce new models during the last half of 1947 and early in 1948. For example, manufacturers of clock controls and other accessories which make gas ranges completely automatic hope to meet the entire demand for their product by the middle of 1947.

Water Heater Picture Bright

Gas water heater manufacturers advise that the picture in their branch of the industry is brighter. The 1936-1940 average sales of water heaters ran about 425,000 units per year, with a peak year in 1941 when sales reached 800,000 units. In 1946, despite difficulties, automatic gas water heater manufacturers reached the 1¼ million mark. Production capacity has been increased greatly Mr. Massey said, and several new manufacturers have entered the field. Manufacturers hope to increase 1946 production from 25% to 50%, but 1947 figures will not be increasing until well after March 1st. The trend of the industry is toward larger sizes of automatic gas water heaters to take care of the demand for hot water for automatic dishwashers, laundry equipment and other modern appliances.

The automatic gas clothes dryer is an appliance that represents a new, large and undeveloped market, he said. Surveys indicate 20% to 30% of housewives interviewed are interested in automatic dryers. Gas dryers are still in limited supply but this appliance is a production line piece of equipment, and once the material situation is cleared away they will be produced quickly and in large volume.

Gas refrigerator production should increase in 1947, Mr. Massey forecast. In a few months the industry expects to be changed over to its new, post-war designs and production facilities have been stepped up to the point where, if materials are available, it will enjoy a large increase over pre-war production levels.

Production of gas boilers in 1946 totaled about 25,000 units, while approximately 150,000 gas furnaces were produced last year. Sales of conversion burners increased from 20,000 to 30,000 units a year pre-war to nearly 300,000 units in 1946, Mr. Massey estimated. Availability of material for house heating equipment and the prospects of further increase in production have both materially improved recently. Manufacturers of gas space heaters feel that 1947 production is going to be limited as was 1946, because of the shortage of sheet steel and iron castings. It is expected that these supplies will be better toward the end of the year, and that there may be some increase in production.

Midwest Personnel Executives Meet

D. L. Sedgwick

THE twelfth meeting of the American Gas Association Midwest Personnel Conference, the first under the chairmanship of D. L. Sedgwick, superintendent of gas operations, The Kansas Power & Light Co., was held at the Phillips Hotel, Kansas City, Mo., February 6 with a large attendance. As is customary the meeting was reporting and discussion of company policies. Reports on sick leave policies indicated that no significant amount of abuse had been encountered where company treatment was liberal.

Developments in the industrial relations field from a national standpoint were reported by Kurwin R. Boyes, A. G. A. secretary. Secretary of the conference, H. H. Duff, personnel director, Panhandle Eastern Pipe Line Co., reviewed the informative returns of a recent survey of employee benefit practices.

The A. G. A. Midwest Personnel Practice Conference will meet again in May and September and will hold a combined meeting with the A. G. A. Southwest Personnel Conference in November, definite time and places to be announced later. All gas companies in the following states are invited to send representatives to the meetings of the Midwest group: Arkansas, Colorado, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, South Dakota and Wyoming.

If you cannot win, make the one ahead break the record.

—Keene Thrusts.

Convention Calendar

MARCH

17-18 •A. G. A. Residential Gas Section, Mid-West Gas Sales Conference, Edgewater Beach Hotel, Chicago.
17-19 •A. G. A. Sales Conference on Industrial and Commercial Gas, Copley-Plaza Hotel, Boston.
20-21 •New England Gas Association, Annual Convention, Hotel Statler, Boston, Mass.
20-21 •Oklahoma Utilities Association, Annual Meeting, Tulsa, Okla.
25-27 •National Restaurant Association Convention, Stevens Hotel, Cleveland (A. G. A. will exhibit).

APRIL

1-2 •P. C. G. A. Home Service Workshop, Timberline Lodge, Timberline, Oregon.
7-9 •A. G. A.–E. E. I. Accounting Conference, Hotel Statler, Buffalo, N. Y.
7-9 •Mid-West Gas Association Annual Meeting, Hotel Paxton, Omaha, Neb.
14-16 •G.A.M.A. Annual Meeting, Drake Hotel, Chicago.
14-16 •A. G. A. Distribution and Motor Vehicle Conference, Hotel Cleveland, Cleveland, Ohio.
16 •A. G. A. Southwest Personnel Conference, Buena Vista Hotel, Biloxi, Miss.
16 •S. G. A. Home Service Workshop, Buena Vista Hotel, Biloxi, Miss.
16-18 •Southern Gas Association, Hotel Buena Vista, Biloxi, Miss.
25-26 •Gas Meters Association of Florida-Georgia Annual Meeting, Boca Raton, Fla.

MAY

Apr. 30-May 1 •A. G. A. Natural Gas Department Spring Meeting, Stevens Hotel, Chicago.
5-9 •A. G. A. Industrial Gas School, Hotel Seneca, Columbus, Ohio.
6-8 •Southwestern Gas Measurement Short Course, University of Oklahoma, Norman, Okla.
12-16 •A. G. A. Commercial Gas School, Washington, D. C.
15-16 •Indiana Gas Association, French Lick Springs Hotel, French Lick.
20-22 •Pennsylvania Gas Association, Wernersville, Pa.
26-29 •National Fire Protection Association, Palmer House, Chicago, Ill.

JUNE

2-4 •A. G. A. Joint Production and Chemical Committee Conference, Hotel New Yorker, N. Y.
9-11 •Canadian Gas Association, General Brock Hotel, Niagara Falls, Ontario.
23-24 •A. G. A., N. Y.–N. J. Sales Conference, Essex and Sussex Hotel, Spring Lake, N. J.

JULY

7-8 •Michigan Gas Association, Grand Hotel, Mackinac Island, Mich.

SEPTEMBER

23-25 •Pacific Coast Gas Association, Hotel Del Coronado, San Diego
Sept. 29-Oct. 3 •A. G. A. Annual Convention, San Francisco, Calif.

Accounting Section

L. V. WATKINS, Chairman | JOHN A. WILLIAMS, Vice-Chairman | WALTER E. CAINE, Secretary

Accounting Conference in April

Leith V. Watkins
A. G. A. Chairman

A COMPREHENSIVE program covering the most significant recent developments in accounting practice and policies has been prepared for the tenth national conference of Electric and Gas Utility Accountants which will be held April 7-9 at the Hotel Statler, Buffalo, New York. The most important accounting function of the year, this meeting will highlight peacetime trends which are of paramount importance to every utility accountant. Speakers include outstanding authorities from both within and outside the industry.

H. P. Taylor
E. E. I. Chairman

Leith V. Watkins, chairman of the A. G. A. Accounting Section, and H. P. Taylor, chairman of the Edison Electric Institute Accounting Division, will serve as co-chairmen of the meeting.

Following registration Monday morning the conference will get under way that afternoon with a general session featuring such broad-gauged subjects as "The Accountant's Place in Management," "America's Economic Outlook," and "Employee Relations." The latter topic is especially noteworthy in view of the recent liason arrangement between the Accounting Section and the A. G. A. Personnel Committee.

Murray Shields, vice-president, Bank of Manhattan Co., New York, one of the country's foremost financial and economic experts, will present his views in one of the principal general sessions' addresses. As author of recent authoritative books on current economic problems and contributor to national publications, Mr. Shields has amassed much valuable and significant data.

The program Tuesday morning is confined to meetings of the general accounting, customer accounting and materials and supplies groups. Special luncheon conferences have been arranged for that day for those interested in customer accounting, customer collections, and customer relations. The afternoon program includes meetings devoted to general accounting, materials and supplies, taxation accounting, depreciation accounting and plant accounting. At 7:00 P.M. a general conference dinner will be held.

Further meetings on general accounting, customer accounting, materials and supplies, taxation accounting and plant accounting will take place Wednesday morning, with individual committee meetings arranged for the afternoon.

A feature of the conference will be an outstanding accounting machine exhibit. A number of the country's leading office machine and equipment manufacturers are cooperating to make an interesting and informative exhibit recently-developed equipment.

Inspection Tour

As an interesting sidelight, the program committee has arranged for a tour of inspection of accounting departments of local public utilities for Wednesday afternoon.

Much valuable material is expected to be presented in the form of joint A.G.A.E.E.I. committee reports. Of particular interest is the "Wrinkles" report which is a compilation of efficient accounting methods, short cuts, innovations and labor-saving devices.

Following is the tentative program:

Magnetic Recording Demonstration

UNUSUAL interest at the National Accounting Conference in the Statler Hotel, Buffalo, is being shown in the magnetic recording demonstration which will be given Wednesday morning, April 9, at the Customer Activities Group Meeting. Representatives of the Armour Research Foundation of Illinois Institute of Technology will demonstrate this development which is said to have special advantages in such fields as employee training and customer relations. It does not need a separate device for transmitting and can be used either with earphones or loud speaker.

GENERAL SESSION

Monday, April 7, 2:00 P.M.

Presiding: H. P. Taylor, Wisconsin Public Service Corporation, Milwaukee, Wisconsin
Leith V. Watkins, Panhandle Eastern Pipe Line Company, New York, New York

Opening Remarks: H. P. Taylor, Chairman, E. E. I. Accounting Division

Address of Welcome: A. T. O'Neill, President, Buffalo Niagara Electric Corporation

The Accountant's Place in Management (A Challenge to Each of Us): An industry executive—to be announced

Employee Relations—Office Workers: Speaker to be announced

America's Economic Outlook: Murray Shields, Vice-President, Bank of Manhattan Co., New York, N. Y.

GENERAL ACCOUNTING ACTIVITIES GROUP

Tuesday, April 8, 9:30 A.M.

Presiding: H. B. Hardwick, The Commonwealth & Southern Corporation, New York, New York
H. D. Borger, The Peoples Natural Gas Company, Pittsburgh, Pennsylvania

Summarized Reports of Committee Activities:
Depreciation Accounting, A. W. Hastings, Epsco, Incorporated, New York, New York
Plant Accounting and Records, A. J. Mayotte, Consumers Power Company, Jackson, Michigan or L. E. Nash, Middle West Service Company, Chicago, Illinois
Application of Accounting Principles, R. P. Kaesshaefer, American Water Works and Electric Co., Inc., New York, New York
Standard Arrangement of Provisions in Mortgage Indentures, R. N. Benjamin, Engineers Public Service Inc., New York, New York
Uniform Classification of Accounts, A. M. Hartogensis, Ebasco Services Incorporated, New York, New York
Destruction and Preservation of Records, B. S. Rodey, Jr., Consolidated Edison Company of New York, Inc., New York, New York
Micro-Filming, Ralph E. White, Assistant Manager, Photograph Records Division, Remington Rand, Inc.
Future Trends in Utility Accounting and Financing, Paul Grady, Partner, Price Waterhouse & Company

CUSTOMERS ACCOUNTING ACTIVITIES GROUP

Tuesday, April 8, 9:30 A.M.

Presiding: W. E. Sturm, West Penn Power Company, Pittsburgh, Pennsylvania
R. F. McGlone, The East Ohio Gas Company, Cleveland, Ohio

Looking to the Future in Collections: C. E. Rowe, Consumers Power Company, Jackson, Michigan

Resume of "Wrinkles" Report: A. G. Burnett, New York Power and Light Company, Albany, New York

Reflecting Customer Attitude Accurately to Top Management: F. J. Porter, Jr., Consolidated Edison Company of New York, Inc., New York, New York

Meter Reading—Interim Report: W. R. Seidel, Rochester Gas and Electric Corporation, Rochester, New York

Accounting Records and Files—Panel Discussion: W. A. Kelly (Leader), Consolidated Gas, Electric Light and Power Co. of Baltimore, Baltimore, Md.

MATERIALS AND SUPPLIES COMMITTEE (A. G. A.)

Tuesday, April 8, 9:30 A.M.

Presiding: G. B. Herr, The Peoples Natural Gas Company, Pittsburgh, Pennsylvania

Purchasing Operations: H. G. Lawrence, Southern Counties Gas Company, Los Angeles, California

Salvage: O. G. Peterson, New York State Electric and Gas Corporation, Ithaca, New York

TAXATION ACCOUNTING COMMITTEE

Tuesday, April 8, 9:30 A.M.

Presiding: Walter S. Alt, Union Electric Company of Missouri, St. Louis, Missouri
C. H. Mann, Columbia Engineering Corporation, New York, New York

Round-table Discussion of Tax Problems and Recent Developments

LUNCHEON CONFERENCES—CUSTOMER ACTIVITIES

Tuesday, April 8, 12:30 P.M.

(Tickets on sale at registration desk. Everyone interested is cordially invited to attend. *No speakers and no formal program.* Discussion meetings will resume following luncheon.)

Women

● "Women hold the balance of power, numerically, politically and economically. They are the least informed of all the public concerning the objectives, policies and practices of business. . . . The ultimate economic beliefs of women will depend upon how fast business recognizes the importance of 'the woman's angle.'"

—SALLY WOODWARD *of Flanley & Woodward*

Customer Accounting
Discussion Leaders: John Heery, United Illuminating Company, New Haven, Connecticut
A. W. Fyfe, Consolidated Edison Company of New York, Inc., New York, New York
Discussion Subjects: "Wrinkles" (With an exhibit showing specimens) Prorating of Irregular Period Billings

Customer Collections
Discussion Leaders: Glenn Ray, Indianapolis Power and Light Company, Indianapolis, Indiana
L. A. Horton, St. Louis County Gas Company, Webster Groves, Missouri
Discussion Subjects: Convincing The Public We Are Not "Pay Up or Be Cut Off" People, Collections Through Outside Service Groups

Customer Relations
Discussion Leaders: O. E. Flora: Pennsylvania Power Company, New Castle, Pennsylvania
P. E. Ewers, Michigan Consolidated Gas Company, Detroit, Michigan
Discussion Subjects: Customer Attitude Toward Billing Without Meters, Customer Accounting Forms From a Customer Relations Viewpoint, Saturday Closing of Business Offices, Encouraging High Job Performance in Customer Contact Employees

MATERIALS AND SUPPLIES COMMITTEE (A. G. A.) LUNCHEON

Tuesday, April 8, 12:30 P.M.

(*Luncheon for committee members only.* Open meeting on materials and supplies accounting to convene at 2:00 P.M. in different room.)

GENERAL ACCOUNTING COMMITTEES

Reports on Joint Subcommittee Activities

Tuesday, April 8, 2:00 P.M.

Presiding: H. B. Hardwick, The Commonwealth & Southern Corporation, New York, New York
H. D. Borger, The Peoples Natural Gas Company, Pittsburgh, Pennsylvania

Machine Applications for General Accounting: J. F. Farley, New York State Electric and Gas Corporation, Ithaca, New York
C. J. Wardell, The Commonwealth & Southern Corporation, New York, New York

This subcommittee will report on new machine developments and describe the machines, procedures and practices used in a recent major machine installation, giving particular emphasis to payroll and material accounting.

Budgets: W. H. Zimmer, The Cincinnati Gas and Electric Company, Cincinnati, Ohio
A. A. Cullman, Columbia Engineering Corporation, New York, New York

This subcommittee will report on trends in budgeting procedure and will describe the budgeting procedures of one or more companies.

Internal Auditing: C. T. Atkisson, Ebasco Services Incorporated, New York, New York
H. C. Johnson, Consolidated Natural Gas Company, New York, New York

This subcommittee has made a study of internal audit procedure, its relationship to other accounting work, and its correlation with audits conducted by public firms, and will report one or more companies' practices.

Functional or Responsibility Accounting: J. E. Jackson, The Cleveland Electric Illuminating Company, Cleveland, Ohio
A. T. Gardner, Delaware Power and Light Company, Wilmington, Delaware

This subcommittee has conducted a study of functional or responsibility accounting; their report will include a definition of the terms and examples of practices being followed by utility companies.

MATERIALS AND SUPPLIES COMMITTEE (A. G. A.)

Tuesday, April 8, 2:00 P.M.

Presiding: G. B. Herr, The Peoples Natural Gas Company, Pittsburgh, Pennsylvania

Report of Stores Operations Subcommittee: L. G. Wisely, Michigan Consolidated Gas Company, Detroit, Michigan

Report of Stores, Equipment and Buildings Subcommittee: A. A. Charonnat, Pacific Gas & Electric Company, San Francisco, California

TAXATION ACCOUNTING COMMITTEES

Tuesday, April 8, 2:00 P.M.

Presiding: Walter S. Alt, Union Electric Company of Missouri, St. Louis, Missouri
C. H. Mann, Columbia Engineering Corporation, New York, New York
Address—Subject to be announced.
Thomas N. Tarleau

DEPRECIATION ACCOUNTING COMMITTEE (E. E. I.)

Tuesday, April 8, 2:00 P.M.

Presiding: A. W. Hastings, Epsco, Incorporated, New York, New York

The Simulated Plant Record Method of Determining Past Life and Mortality Dispersion From Plant Records: Alexander E. Bauhan, Public Service Electric and Gas Company, Newark, New Jersey

The Effects of Dispersion in the Depreciation Problem: Wallace B. Carr, Buffalo Niagara Electric Corporation, Buffalo, New York

PLANT ACCOUNTING COMMITTEES

Tuesday, April 8, 2:00 P.M.

Presiding: A. J. Mayotte, Consumers Power Company, Jackson, Michigan
L. E. Nash, Middle West Service Company, Chicago, Illinois

Coordination of Property Records with General Accounting, Operations and Engineering Activities: General Discussion

Accounting for Salvaged Equipment and Major Spare Parts Items: E. D. King, Detroit Edison Company, Detroit, Michigan

DINNER SESSION

Tuesday, April 8, 7:00 P.M.
(Music)

Presiding: H. P. Taylor, Chairman E. E. I. Accounting Division
Leith V. Watkins, Chairman A. G. A. Accounting Section
Guests of Honor: Grover C. Neff, President, Edison Electric Institute
R. H. Hargrove, President, American Gas Association
H. S. Bennion, Vice President and Managing Director, Edison Electric Institute
H. Carl Wolf, Managing Director, American Gas Association
Accounting for Accountants: A criticism and appreciation by a speaker who knows his stuff.

GENERAL ACCOUNTING SUBCOMMITTEES

Wednesday, April 9, 9:30 A.M. to 12:30 Noon

Open meetings for discussion of reports submitted Tuesday afternoon, and related topics.
Machine Applications for General Accounting: C. J. Wardell, The Commonwealth and Southern Corporation, New York, New York
J. F. Farley, New York State Electric and Gas Corporation, Ithaca, New York
Budgets: W. H. Zimmer, The Cincinnati Gas and Electric Company, Cincinnati, Ohio
A. A. Cullman, Columbia Engineering Corporation, New York, New York
Internal Auditing: C. T. Atkisson, Ebasco Services Incorporated, New York, New York
H. C. Johnson, Consolidated Natural Gas Company, New York, New York
Functional or Responsibility Accounting: J. E. Jackson, The Cleveland Electric Illuminating Company, Cleveland, Ohio
A. T. Gardner, Delaware Power and Light Company, Wilmington, Delaware
Licensed Projects Accounting and Reporting: H. W. Boozer, Georgia Power Company, Atlanta, Georgia

CUSTOMER ACTIVITIES ACCOUNTING GROUP MEETING

Wednesday, April 9, 9:30 A.M.

Presiding: W. E. Sturm, West Penn Power Company, Pittsburgh, Pennsylvania
R. F. McGlone, The East Ohio Gas Company, Cleveland, Ohio
Write As You Talk—Customers Like It: C. L. Sullivan, Peoples Gas Light & Coke Company, Chicago, Illinois
Pay Station Arrangements for Customer Convenience: Speaker to be announced.
Developments in Office Devices and Equipment—Interim Report: J. H. W. Roper, Washington Gas Light Company, Washington, D. C.
Demonstration of Magnetic Recording: Armour Research Foundation of Illinois, Institute of Technology

MATERIALS AND SUPPLIES COMMITTEE (A. G. A.)

Wednesday, April 9, 9:30 A.M.

Presiding: G. B. Herr, The Peoples Natural Gas Company, Pittsburgh, Pennsylvania
Stores Accounting: D. M. Baker, The East Ohio Gas Company, Cleveland, Ohio

TAXATION ACCOUNTING COMMITTEES

Wednesday, April 9, 9:30 A.M.

Presiding: Walter S. Alt, Union Electric Company of Missouri, St. Louis, Missouri
C. H. Mann, Columbia Engineering Corporation, New York, New York
Round Table Discussion of Tax Problems and Recent Developments

PLANT ACCOUNTING COMMITTEES

Wednesday, April 9, 9:30 A.M.

Presiding: A. J. Mayotte, Consumers Power Company, Jackson, Michigan
L. E. Nash, Middle West Service Company, Chicago, Illinois
Simplification of Continuing Property Records: A. W. Egger, Central Illinois Light Company, Peoria, Illinois
G. H. Eilers, Cincinnati Gas & Electric Company, Cincinnati, Ohio
Use of "Standard or Trial Unit Costs" on Distribution Plant: General Discussion

Wednesday Afternoon, April 9

Individual Committee Meetings
Tour of inspection of accounting departments of local public utilities.

National Restaurant Exposition

THE A. G. A. lounge will be the headquarters for visiting gas men during the National Restaurant Exposition at the Hotel Stevens, Chicago, March 25 to 28. More than 25 manufacturers of gas cooking equipment will exhibit at this annual exposition where gas men from all over the country go to see the latest developments in the volume-cooking and public-feeding field.

The A. G. A. Commercial Gas Cooking Center, with its mechanical gas flame serving as a beacon, will be a focal point where gas men can meet with manufacturers, dealers and restaurant operators.

Texas-Detroit Pipeline Approved

AN application by Michigan-Wisconsin Pipe Line to construct a $52,600,000 natural gas pipeline from Texas to the Detroit-Ann Arbor area, as well as to various sectors in Wisconsin, Missouri and Iowa, has been approved by the F.P.C.

In making its decision, the Commission overruled objections of Panhandle Eastern Pipe Line Co., which serves Detroit, as well as of the United Mine Workers, Railroad Brotherhoods and the National Coal Association. The governmental agency found that Panhandle is unable to meet demands of the Detroit area.

More Gas for Midwest

THE Natural Gas Pipeline Co. of America and Texoma Natural Gas Co. have received F.P.C. authorization to construct additions to their facilities in the integrated natural gas transmission system extending from the Panhandle Field in Texas and supplying market areas in Indiana, Iowa, Kansas, Nebraska, Wisconsin and Illinois. Aggregate cost of the facilities is estimated at $23,493,987.

With the installation of these facilities, to be completed about January 1, 1949, Natural will have a capacity of about 484 million cubic feet to meet estimated peak-day sales requirements of its utility customers, including Chicago District Pipeline Co.

Safe Driving Record of Pittsburgh Group

DRIVERS of trucks and automobiles operated by The Manufacturers Light and Heat Co. contributed to a new safe driving record in 1946.

According to W. H. Adams, the company's safety director, gas company vehicles in the Pittsburgh group of the Columbia system bettered the 1945 mark by being involved in less than one accident for every 100,000 miles of operation.

Truck and automobile travel in the group last year amounted to 5,824,495 miles. This is equivalent to driving 233 times around the world at the equator.

"Cooking for Profit" Has New Format

THE well-known commercial publication, "Cooking for Profit," launched as a new venture 16 years ago, celebrated its birthday last month with the announcement that circulation had increased to 40,000 in 1946 and that a modern improved format had been adopted.

This 24-page two-color publication, which circulates among more volume cooking establishments than any magazine in its field, has completely overhauled its type faces and layout to reflect the modernity and cleanliness of the up-to-date utility company.

Gas Concern To Spend 12 Million in 1947

MICHIGAN Consolidated Gas Co. will spend approximately $12,000,000 in 1947 to expand and improve its facilities, President Henry Fink has announced.

A gas production plant will be built at an estimated cost of $2,000,000, about $8,000,000 will be spent for new mains, services and domestic expansion in the Detroit area, and about $2,000,000 for expanded facilities in the Grand Rapids, Muskegon, Ludington, Mt. Pleasant, Greenville-Belding and Big Rapids areas, Mr. Fink said.

Residential Gas Section

WALLACE M. CHAMBERLAIN, Chairman | C. S. STACKPOLE, Vice-Chairman | F. W. WILLIAMS, Secretary

Eastern Gas Sales Conference

W. J. Schmidt, chairman, A. G. A. Water Heating Committee, and F. B. Jones, conference chairman

Left to right: Chester S. Stackpole, vice-chairman, Residential Gas Section; Chairman F. B. Jones, Pittsburgh; Donald Thompson, Federal Reserve Bank, Cleveland; A. C. Fox, Fuller Brush Co., Pittsburgh, and Christy Payne, Jr., Pittsburgh

MORE than 400 gas industry sales executives convened at the Roosevelt Hotel, Pittsburgh, on February 13 and 14 to participate in the first Eastern Natural Gas Regional Sales Conference in five years. The conference, sponsored by the Residential Gas Section of the American Gas Association, was action-packed throughout.

Following welcoming remarks by F. B. Jones, manager of sales and market research, Equitable Gas Co., and chairman, Eastern Natural Gas Regional Sales Council, R. H. Hargrove, vice-president and general manager, United Gas Pipe Line Co., and A. G. A. president, delivered the keynote address, "Industry Problems and Roads to Progress." He called for aggressive sales promotion and expressed the opinion that the gas industry is on the threshold of its greatest opportunity for advancement.

W. J. Schmidt, general sales manager, Long Island Lighting Co., and chairman, A. G. A. Water Heating Committee, presented a dramatic picture of sales possibilities for both utility and appliance companies offered through new concepts of hot water requirements for automatic washing machines, automatic dish washers and other family use.

Gas house heating is one of the major considerations in the minds of gas industry executives today and Raymond Little, general sales manager, Equitable Gas Co., Pittsburgh, and chairman, A. G. A. House Heating and Air Conditioning Committee, reported on the studies his committee has made in this important field of gas utilization.

Pointing out that most of the recent consumer preference surveys to determine market potentials show that from 40 per cent to 65 per cent of prospective new home builders desire gas for heating, Mr. Little stressed the necessity for the gas industry to develop a heating load that is economically sound.

There are at least 70 manufacturers of conversion burners in the market today as compared with four or five before the war, Mr. Little said. Many of these burners will be discontinued when straight gas-fired equipment is again readily available.

Steps are being taken to upgrade heating equipment and a program will soon be recommended to the industry for educating the consumer, the heating trade, the architect and builder to the necessity for maintaining high-grade standards for house heating with gas.

Irving K. Peck, vice-president, Manufacturers Light & Heat Co., Pittsburgh, presided at the afternoon session on Thursday, with W. H. Wise, manager of sales engineering, The Peoples Gas Light & Coke Co., as the opening speaker. Mr. Wise presented the solution his company had found for controlling installations of gas-fired equipment on its mains. His provocative talk is printed elsewhere in this issue.

Market research, low cost sales and their relation to the gas industry were discussed by Lyman Hill, director, sales research, Servel, Inc. Pointing to the work of the A. G. A. Post-War Planning Committee as an outstanding example of market research, Mr. Hill demonstrated how studies of this nature could be incorporated into sales programs. Because of changing trends in population and buying habits, he advocated frequent studies along these lines.

W. B. Hewson, publicity and advertising manager, The Brooklyn Union Gas Co., and a member of the A. G. A. National Advertising Committee, presented the Association's 1947 advertising program which will bring three hundred million advertising messages on domestic, industrial and commercial uses of gas to the American public in leading consumer, trade and engineering college publications this year. Mr. Hewson advocated tie-in ad-

Ruth Severson, The Peoples Natural Gas Co., and S. V. Severson, Republic Light, Heat & Power Co.

Helen Kirtland, Ohio Fuel Gas Co.; Kathryn L. Barnes, Equitable Gas Co.; Jessie McQueen, American Gas Association, and Flora G. Dowler, Manufacturers Light & Heat Co.

Left to right: W. H. Wise, Peoples Gas, Light & Coke Co., Chicago, and R. Little, Equitable Gas Co., Pittsburgh

Lyman Hill, Servel, Inc.; G. T. Stevens, Eureka Williams Corp., and W. B. Hewson, The Brooklyn Union Gas Co.

vertising by utility companies in order to capitalize on the impact of these messages and asked the support of the industry in further expanding gas advertising efforts in the coming years.

Expressing the belief that the national trend is changing from a sellers' to a buyers' market right now, George T. Stevens, executive vice-president, Eureka Williams Corp., declared that just as production plants had found it necessary to retool for peacetime manufacturing, sales organizations should be retooled to meet today's needs. Advertising themes, basic sales training and promotional plans must be changed to keep pace with tomorrow's demands, he said. Programs that were profitable before the war or even in the early days of reconversion, now may prove obsolete.

Franklin T. Rainey, general sales manager, Ohio Fuel Gas Co., presided at the morning session on Friday. E. Carl Sorby, vice-president, George D. Roper Corp., and chairman of the "CP" Range Committee, eloquently told the conferees what the gas industry was doing and would do to meet the automatic cooking challenge. In forceful and convincing language, Mr. Sorby pictured the potential cooking market for the gas industry. Emphasizing the demand for modernity in cooking appliances shown by today's consumers, Mr. Sorby graphically showed what the modern gas range, particularly the "CP" model, offers as an answer to this challenge.

The important part home service departments play in the sale of gas appliances through participation in the New Freedom Gas Kitchen Program, on gas utility salesfloors and in the homes of consumers, was presented by Katherine Barnes, home service director, Equitable Gas Company. Helen Kirtland, home service director, Ohio Fuel Gas Co., described the work home service is doing in cooperation with schools and colleges. Flora Dowler, home service director, Manufacturers Light & Heat Co., arranged the home service participation in the program, and described some of the activities of home service workers in civic and scholastic fields.

The story of the 1947 gas refrigerator was presented in an interesting manner by A. D. Howard, assistant sales promotion manager of Servel. Tracing the history of gas refrigeration from its birth 20 years ago Mr. Howard used pictoral slides to show the progress

(Continued on page 142)

Irving K. Peck, vice-president, Manufacturers Light & Heat Co., Pittsburgh

E. Carl Sorby, George D. Roper Corp., using models to dramatize his speech, "Meeting the Automatic Cooking Challenge with Gas"

Workshop Maps Home Service Program

Mrs. Mary Belle Burnett, chairman A. G. A. Home Service Committee, presiding at the Workshop

Walter C. Beckjord, president, The Cincinnati Gas & Electric Co., addressing the Home Service Workshop

MORE than 200 home service directors from 28 states took part in the first full-fledged A. G. A. Home Service Workshop since the war in Cincinnati, Ohio, January 20-23. Mrs. Mary Belle Burnett, home service director, Cincinnati Gas and Electric Co., and A. G. A. Home Service Committee chairman, presided at the workshop.

The three-and-one-half-day program, covering a wide array of topics, laid down a home service blueprint for 1947. W. M. Chamberlain, A. G. A. Residential Gas Section chairman, struck the keynote when he said: "If it helps to sell gas, back it to the limit." Speaking in the Cincinnati utility's home service auditorium, he said that the backdrop of war activities in nutrition, food preservation and civilian defense, put home service in an excellent position to take an active part in the gas industry's accelerated sales promotion program.

The versatility of home service was emphasized by Ruth Shank, St. Louis County Gas Co., Webster Groves, Mo., who described its work as "All Things to All Communities." Participation in community activities is high on the list of home service "musts," she said.

An important part of the program was devoted to "product" information on gas equipment. Feature addresses included "CP Gas Ranges—Present and Future" by Paul I. Berno, Tappan Stove Co.; "The Clock Control" by Gladys Price, Southern California Gas Co., Los Angeles; "Correction of Baking Complaints" by Joan Huck, A. G. A. Testing Laboratories; and a demonstration on "The Fourth Cooking Zone" by Rebecca Sullivan, The Gas Service Co., Topeka. Part of Mr. Berno's remarks was published in the February MONTHLY.

The importance of the promotion of the automatic storage water heaters and a knowledge of its uses was brought out by W. D. Williams, Public Service Electric and Gas Co., Newark, N. J. Supplementing this discussion were talks on "Laundry Techniques" by Eleanor Ahern, consultant to Procter and Gamble, Cincinnati, O., and "What's New in Textiles" by Katherine Gerstenberger, Associate Professor of Textiles and Clothing, University of Cincinnati. A sales-slanted demonstration revolving around the gas refrigerator was presented by Elizabeth Lynahan, The Peoples Gas, Light and Coke Co., Chicago. This was followed by a valuable report on refrigerator servicing by William W. Marshall, Minneapolis Gas Light Co. Mr. Marshall's paper appeared in full in the February MONTHLY.

For the demonstration and also for the discussion of "Research Program on Kitchen Planning" by Clara Ridder, Servel Inc. a New Freedom Gas Kitchen was installed for the workshop through the courtesy of Servel Inc. Kitchen arrangements based on motion and time studies were illustrated by Miss Ridder through charts and pantomime operations. Ways in which home service can cooperate with kitchen planning were outlined by H. Vinton Potter, director, New Freedom Gas Kitchen, American Gas Association.

Anne McManus, The East Ohio Gas Co., in a talk entitled "A Stage Setting for Demonstrations," told how her company has installed a home-type kitchen as a demonstration platform. Lois Dinneen, Equitable Gas Co., used slides to show attractive installations of gas kitchens on the new sales floor in Pittsburgh.

A fourth field of "product" information, discussed by Paul W. Craig, Equitable Gas Co., Pittsburgh, was "Cooking Equipment for School Lunchrooms." Mr. Craig considered the importance of cooperation with schools through their school lunchrooms.

Home Service Operations

The workshop program was purposely planned to spotlight the special interests of the newer people in home service. One entire session was given over to "Home Service On the Job." Carolyn M. Davis, Nashville Gas & Heating Co., Nashville, Tenn., outlined the plan sequence through which her one-girl home service department program was set up. In a year's time an active program of home calls, radio work and contacts with schools and clubs was under way in Nashville, Miss Davis reported.

Ellen Miner, Columbia Gas & Electric Co., described how work is planned in a district system, stressing the importance of finding out as much as possible about each community in which work is to be undertaken.

Meeting in the home service auditorium of The Cincinnati Gas & Electric Co., showing part of the group attending the Workshop

Ways to evaluate a cadet program for home service were outlined by Eleanor Morrison, Michigan Consolidated Gas Co., Grand Rapids. Miss Morrison is chairman of an A. G. A. home service committee study on the need of such a cooperative program with home economics students.

The topic "Home Service As A Career," received special attention at the workshop. One of the career records set up by the Ohio Fuel Gas Co. was played for the group and introduced by Margaretha Ackermann, Cincinnati Gas and Electric Company.

Phases of home service operation were delineated in a series of five-minute talks. Blanche Kerr, Central Illinois Electric and Gas Co., Rockford, described a plan of employee education through family participation; Kathryn S. Johnson, Rockland Gas Co., Spring Valley, discussed how home service fits in as a part of the community; Thelma Holmes, Alabama Gas Co., Montgomery, outlined a project in southern companies on "Training for Domestic Service"; Mrs. Winnell Simmons, Houston Natural Gas Co., Houston, gave an account of the radio program "School of the Air." Gladys Price, Southern California Gas Co., showed promotion material possible in a large district company.

Discussion Groups

No part of any workshop program is considered more important to home service people than the opportunity to participate in controlled-discussion groups. Four such groups were set up with leaders as follows: "The System Department" led by Mildred Clark, Oklahoma Natural Gas Co.; "City Departments," Esther Cleary, Rochester Gas and Electric Corp., presiding; two sections of "One-Girl Departments" divided between the newer people led by Mary Alice Crosson, formerly a one-girl director and now in the Citizens Gas and Coke Utility, Indianapolis, and the experienced one-girl departments with Louise Anderson, Iowa Power and Light Company, Des Moines, as leader. Discussion periods were held for an hour on two

Time out between conference sessions. Left to right: Ruth Severson, Pittsburgh; Jean Montgomery, Columbus, Ohio; and Marilyn Miller and Mary Swiston, Chicago

different days of the conference and on a third day the leaders presented the high points of the discussions.

Immediately preceding the first discussion period the conference heard an entertaining presentation by Roy Battles, farm program director of Radio Station WLW, Cincinnati, on the subject, "What It Takes To Make a Live Group Discussion."

Home Service Techniques

A skit on "New Talent Evaluates the Home Call" was presented by two members of the home service department of the Ohio Fuel Gas Co.—Betty Rauch of Mansfield, and Lois Snyder, Coshocton.

"Demonstration Ideas" were discussed by Colleen Fowler, Gas Service Co., Kansas City. This was followed by Mary Huck, Ohio Fuel Gas Co., in Columbus who presented a kit used for demonstrations in dealer stores and told how it had been developed. A description of the kit appears elsewhere in this issue.

Answering many questions on how to set up food photographs, Ruth Soule, The Brooklyn Union Gas Co., outlined the ways in which she had learned how to secure colored photographs used in bill enclosures. She used slides from four gas companies: The Brooklyn Union Gas Co., The Peoples Gas Light and Coke Co., Chicago, Rochester Gas & Electric Corp., and Southern California Gas Company.

An outside point of view was presented by George Garnatz, director, The Kroger Food Foundation, Cincinnati, who dealt with special developments in frozen foods. Preparation of foods for freezing, the freezing process and the cooking of frozen foods were discussed.

"Use the Feminine Slant, Mr. Salesman" was the provocative title of a paper by Helen Kirtland, Ohio Fuel Gas Company. She emphasized the importance of salesmen knowing how to sell equipment to women. This discussion led into a dissertation of woman's problems in equipment as seen from a well known editor's point of view. "Keying Information to Women's Needs" was ably handled by Alice Blinn, associate editor, *Ladies Home Journal*.

Concluding the program, Jessie McQueen, A. G. A. home service counsellor, reviewed the principal trends brought out in the program and emphasized the need of a review of "tried and true" methods which have brought commendation to home service over its years of operation.

Conference Luncheons

A luncheon on Monday, January 20, was well-attended by conference members as well as a large number of executives from the Cincinnati Gas and Electric Company. After introductions of members of the Program Committee, Mrs. Burnett, as chairman, introduced the Honorable James Garfield Stewart, Mayor of Cincinnati, who extended a hearty welcome.

"The Gas Industry Moves Ahead," W. C. Beckjord, president, Cincinnati Gas & Electric Co., was the title of a stimulating

Speakers' table at the Home Service luncheon session

One of the discussion groups active at the Home Service Workshop

speech and welcome. Home service, he pointed out, can be proud of the industry in which it works.

H. Carl Wolf, managing director, American Gas Association, presented an interesting interpretation of the work of the A. G. A. which through research, laboratory testing, and study in various sections provides information of benefit to home service.

A second luncheon pointed up the organization of home service work through different affiliated gas associations and regional sales councils. Susan Mack, Boston Consolidated Gas Co., chairman of the New England home service group, and Julia Hunter, Lone Star Gas Co., Dallas, chairman of a similar group in the Southern Gas Association, outlined their home service programs. Representing Mrs. Rita Calhoun, Portland Gas & Coke Company, as chairman of home service in the Pacific Coast Gas Association, Gladys Price, Southern California Gas Co., a former chairman, outlined plans for the P.C.G.A. Workshop in Portland in April. Inez Somers, Consumer's Gas Co., Toronto, spoke on the home service program of the Canadian Gas Association. The chairman also indicated the three regional gas sales conferences in which home seervice has been invited to participate: Eastern Natural Sales Conferences in February; Mid-West Sales Conference in Chicago; and the New York-New Jersey Regional Gas Sales Conference in New Jersey in June.

Credits:

Highlighting the success of the home service workshop was the hospitality of the Cincinnati Gas and Electric Company. This included recess refreshments during the meetings in the utility auditorium. Each of the ten members of the home service department were assigned special responsibilities at the conference—some assisting in the demonstrations and others in registration. Margaretha Ackerman was in charge of exhibits, Mrs. Margaret Robinson directed the distribution of papers, R. J. Paulsen arranged for an exhibit of gas equipment on display in the auditorium.

Social hours following each day of the conference were a popular contribution to the proceedings. The first such occasion was sponsored by the Hardwick Stove Company, the next by the Tappan Stove Company, and the third by Servel Inc.

Members of the Program Committee who served as presiding officers of the conference sessions were Mrs. Mary Belle Burnett, Mildred Clark, Helen Kirtland, Ruth Shank, and Jessie McQueen.

Advice

● Advice—what an older man gives away to younger men after it's too late to use it himself.

Midwest Gas Sales Conference

Unprecedented problems and opportunities faced by gas industry sales groups will be discussed and analyzed at the sixteenth annual A. G. A. Midwest Regional Gas Sales Conference at the Edgewater Beach Hotel, Chicago, March 17 and 18.

Among the subjects to be discussed will be dealer relations, manufacturers' developments, market research, the New Freedom Gas Kitchen Program, the Fourth Cooking zone, sales firepower, gas in the Laundry, and advertising. J. C. Sackman, sales manager, Northern Indiana Public Service Co., is conference chairman.

EASTERN GAS SALES CONFERENCE

(Continued from page 139)

that had been made both in style and market acceptance in the two decades since the company introduced its first water-cooled refrigerator.

Stressing the salient features of the 1947 model, Mr. Howard declared that there was now no limit to sales achievement on gas refrigeration, save that of production capacity plus ability to contact prospective customers. He said that Servel hopes to attain a daily production greatly exceeding anything the company has ever done before. An eventual production of four to five hundred thousand units annually was forecast.

At the closing session Friday afternoon, presided over by Christy Payne, Jr., sales manager, Peoples Natural Gas Co., some interesting and illuminating facts relating to people and money were presented by Donald Thompson, vice president in charge of research, Federal Reserve Bank of Cleveland. He pointed out the large gains that had been made in cash and demand deposits held by the public during the war years, during a time when consumer goods were not freely available, particularly in the heavy durable goods categories.

Recent surveys indicate that since the end of the war consumer purchases have been financed largely out of earnings and that little change appears in savings. He also predicted that as more heavy durable goods such as gas appliances and equipment come into the market, buying may be financed through consumer credit or installment buying, rather than out of savings. If supplies become available, Mr. Thompson predicted, the largest number of building units in the history of the nation will be erected in the next 12 to 18 months. This program, he said, will present a great potential market for gas utility and gas appliance manufacturing companies.

House-to-house contact work should be an important part of the sales program of gas utility companies, A. C. Fox, district manager, Fuller Brush Co., told the sales executives. Drawing on his broad experience in hiring and training employees for this branch of salesmanship, the Fuller Brush executive outlined the qualifications he looked for in engaging salesmen. Mr. Fox stressed the importance of the housewife as the final judge of the company's product and service. He then presented some of the major reactions encountered by house-to-house contact workers and showed the methods his own company employs to meet these reactions.

The conference ended on a note of hospitality with a Valentine Party sponsored by 31 gas appliance manufacturers at which Harold Massey, G.A.M.A., William Worth, Bendix, and Malcolm Scott, Ruud Manufacturing Co., were hosts.

Range Replacement Plan for Schools

SCHOOL home economics departments are taking advantage of Magic Chef's new School Range Replacement Program, reports S. E. Little, vice-president, American Stove Company.

This new school program, Mr. Little explains, provides for new gas ranges at the dealer's regular cost plus actual cost of installation. The school then receives a new range without cost every two years thereafter, or as new models appear on the market. This program makes it possible for home economics teachers to have the very latest in gas cooking equipment for the very minimum in cost. The plan is applicable only for instructional uses in home economics departments of universities, colleges, senior and junior high schools.

A school folder, prepared by American Stove Company, outlines the plan in detail and may be obtained by writing the advertising department in Cleveland.

Cook Book for Gas Range Buyers

FIRST presentation of an attractive new book of recipes, "America Cooks," was made to home service executives of the American Gas Association Home Service Workshop at the Netherland Plaza Hotel in Cincinnati, January 20. The new promotional piece is an attractive collection of American recipes contributed to the Hardwick Stove Co., Cleveland, Tenn., by home service executives throughout the country.

Several Hardwick merchandising organizations are planning special sales promotions built around "America Cooks." At present, purchasers of the firm's de luxe model gas range are instructed that they may obtain a free copy of the cook book by returning a post-card found in the range oven.

The book has a cover produced in full color and lacquered to resist stains and moisture. Each recipe was thoroughly tested in the company's own test kitchen.

Industrial & Commercial Gas Section

KARL EMMERLING, Chairman — LEON OURUSOFF, Vice-Chairman — MAHLON A. COMBS, Secretary

Gas Men To Meet at Boston

R. H. Hargrove,

Dr. G. R. Harrison

Frank W. Lovejoy

Ernest Henderson

INDUSTRY and the Atom" will be the subject of a talk by Dr. George R. Harrison, Dean of Science, Massachusetts Institute of Technology, at the Tuesday luncheon of the A. G. A. Sales Conference on Industrial and Commercial Gas, American Gas Association, to be held at the Copley-Plaza Hotel, Boston, March 17, 18 and 19. In these days when control of atomic energy is the number one international topic, every one attending the three-day conference will want to hear what this eminent scientist has to say about atomic power and what it will mean to the gas industry.

The first day's sessions on March 17 will be devoted to topics on commercial gas which will be presented by authorities in the gas business, and also men outside of the gas industry. Among those speakers on subjects allied with volume cooking and public feeding will be Colonel Paul P. Logan, National Restaurant Association and William Broeg, food consultant, San Francisco and Boston.

On Tuesday, March 18, the subjects discussed will be of interest to both industrial and commercial gas men and will include Frank H. Adams, president, Surface Combustion Corp., Toledo, Ohio; Ernest Henderson, president, Sheraton Hotels, Boston; Frank W. Lovejoy, sales executive, Socony-Vacuum Oil Co., New York; and E. S. Pettyjohn, Institute of Gas Technology, Chicago. R. H. Hargrove, President, American Gas Association, will attend the luncheon to greet the delegates to the conference and have a few words to say to them.

Thursday, March 18, will be devoted exclusively to industrial gas subjects presented by leaders in their respective fields. Various phases of industrial gas utilization covered by these speakers will include convection ovens, precision casting, textile processing, prepared atmospheres and wholesale baking. Industrial gas men attending these sessions will find it very worthwhile.

The presentation of certificates to new members of the Industrial and Commercial Hall of Flame will be made at the Tuesday morning session, and late Tuesday afternoon the Gas Appliance Manufacturers Association will sponsor a reception for the delegates.

Midwest Industrial Gas Council Meets in Chicago

A BROAD program topped by the presentation of four interesting papers and election of officers for the coming year, featured a meeting of the Midwest Industrial Gas Council in the Stevens Hotel in Chicago, January 24.

Officers of the Midwest Industrial Gas Council, left to right: Don Groff, vice-chairman, Northern Indiana Public Service Co., Hammond, Ind.; Vance Uhlmeyer, chairman, Iowa Illinois Gas & Elec. Co., Molino, Ill.; H. F. Rehfeldt, retiring chairman, The Peoples Gas Light and Coke Co., Chicago, and Paul F. Gibson, secretary-treasurer, Western United Gas & Elec. Co., Aurora, Ill.

Carl H. Lekberg, Northern Indiana Public Service Co., Hammond, Ind., spoke on "The Kolene Process—What It Is And What It Means to Industrial Gas." A. D. Wilcox, industrial engineer, Eclipse Fuel Engineering Co., of Rockford, Ill., followed with an enlightening paper entitled "Factors to Consider in Galvanizing with Gas."

After luncheon, Henry W. Schramm, assistant chief engineer, the Standard Furnace Division, Surface Combustion Corp., Toledo, continued with a paper on "Combustion Systems and Burners." S. H. Bivins, western regional manager, Detroit Rex Products Co., Detroit, closed the prepared talks with a paper on "Metal Cleaning." The speakers used slides to supplement their remarks.

E. S. Pettyjohn, recently appointed director of the Institute of Gas Technology, gave an impromptu talk on current research work being conducted at the institute.

The following officers were elected to serve for the coming year: chairman, Vance Uhlmeyer, Iowa-Illinois Gas & Electric Co., Moline, Ill.; vice-chairman, Don Groff, Northern Indiana Public Service Co., Hammond, Ind., and secretary-treasurer, Paul F. Gibson, Western United Gas & Elec. Co., Aurora, Ill.

The next meeting of the council will be held in St. Louis, Mo. sometime in June, details to be announced at a later date.

INDUSTRIAL GAS SCHOOL

THE A. G. A. Industrial Gas School, sponsored by the Industrial and Commercial Gas Section, American Gas Association, will be held the week of May 5 to 9, 1947, at the Hotel Seneca, Columbus, Ohio.

Purpose of the school is to provide intensive training for the men who sell or promote the use of gas for the diversified heating operations in industry. New equipment and new techniques that were stimulated by war production have been adapted for peace-time use in many fields, thus advancing the progress of gas utilization and increasing the opportunity to expand industrial gas sales.

The five-day course will provide instruction in the utilization and sale of industrial gas covering practically all the applications and problems that may confront the industrial gas man in his daily rounds. A complete outline of the course of study follows:

Monday—May 5, 1947

SEMINAR ON COMBUSTION

COMBUSTION PRINCIPLES—A review of general combustion principles, the advantages and disadvantages of various types of mixing equipment and burners.

APPLICATION OF COMBUSTION EQUIPMENT—The application of combustion equipment from the consideration of combustion principles, dividing furnaces into types as to construction and then as to temperature ranges used.

INDIVIDUALIZING THE FURNACE TO THE JOB—The problems involved in furnace type selection as related to the job by considering general product requirements and relation of furnace to production and material handling.

Tuesday—May 6, 1947

PRINCIPLES OF FURNACE DESIGN

HEAT TRANSFER—This subject will be covered by giving the basic principles of conduction, convection and radiation.

HEAT LOSSES—A discussion of heat losses through fire brick, insulation fire brick and combination furnace walls, with and without insulation, considering time to reach equilibrium and economic factors involved.

METHODS OF HEAT RECOVERY—Description of recuperation, regeneration, and the use of counter-flow principle to salvage waste heat.

NEW DEVELOPMENTS and SPECIALIZED EQUIPMENT

DIRECT AND INDIRECT-FIRED HEAT-TREATING FURNACES—A discussion of furnaces as units, what and how results are accomplished in each type, and construction features—covering high temperature, low temperature, direct and air heater, bright annealing, pot and neutral salt furnaces.

ALLOY RADIANT-TUBE FURNACES—Fields of application, tube arrangement and number, heat transfer, output rates and tube life.

REFRACTORY RADIANT-TUBE FURNACES—The same consideration as the above lecture, but as applied to refractory tubes and rollers.

ATMOSPHERE GENERATORS AND PREPARED ATMOSPHERES—The generation of various prepared atmospheres, their composition and the selection of the atmosphere for the application.

Wednesday—May 7, 1947

DIRECT FLAME HEATING AND FLAME HARDENING—The equipment used and its application—comparisons with induction heating for hardening and blanking operations.

NON-FERROUS MELTING FURNACES—The various types of non-ferrous melting furnaces and practices—crucible, pot, reverberatory, and die and permanent mold casting.

VARNISH COOKING—PAINT DRYING—The equipment for cooking varnish. The various types of ovens for drying paint with the advantages and disadvantages of each. Suitable applications of each type and comparisons of gas to other fuels.

CORE AND BAKING OVENS—The principles of good core baking practices and the various types of oven design.

STEAM GENERATION I—Gas designed boilers and the applications of steam to industrial processing with recommendations for sizing the boiler to the job.

STEAM GENERATION II—The burners and control equipment for the conversion of large boilers, presenting the problems involved, including combustion space, input, overfiring and draft.

KILNS, LEHRS AND CERAMIC FURNACES—The specific problems and product requirements involved in ceramics, which differ from other processing in the same temperature ranges.

Thursday—May 8, 1947

IMMERSION HEATNG—The basic principles for water and solution tanks, and new developments of forced exhaust for high temperature solutions, metals and salts.

TEMPERATURE MEASUREMENT, CONTROL AND PROTECTIVE EQUIPMENT—The various types used in industrial processing with gas heat in all temperature ranges.

FOOD BAKING AND PROCESSING—The problems involved in selling and applying gas in the large volume preparation of foods of all types.

ENGINEERING GAS TO THE JOB—Plant layout, equipment location, sizing service facilities, pressure regulation and other factors involved in the sale of industrial gas equipment.

COMPETITIVE FUELS AND HEATING COSTS—Estimating fuel equivalents and computing total fuel requirements. Price trends of fuels, gas and electric rates, propane competition.

Friday—May 9, 1947

CUSTOMER RELATIONS—See the right man, make periodic calls, know problems, processes, customer attitudes, equipment trends, service and how to handle complaints.

SELLING TOOLS—Making good use of handbooks, catalogs, testimonials, proposals and test data.

SALES TECHNIQUES—The fundamentals of organizing sales efforts and making a successful sales presentation.

MAKING USE OF FACILITIES AND ACTIVITIES OF A. G. A.—The services available to the member companies and individual members of the American Gas Association.

The faculty of the A. G. A. Industrial Gas School is made up of leaders in their respective fields in member gas companies, specialists in various phases of the applications of industrial gas from the manufacturers of industiral gas equipment, a professor from Ohio State University, and one from Western Reserve University.

COMMERCIAL GAS SCHOOL

As a companion project, the Industrial and Commercial Gas Section, American Gas Association, will sponsor the A. G. A. Commercial Gas School which will be held the week of May 12 to 16, 1947 in Washington, D. C. Most of the sessions will be in the auditorium of the Washington Gas Light Company, and on two afternoons and one evening they will be at the Lewis Hotel Training School.

Objective of the school is to assist gas companies in securing more commercial sales by providing intensive training for men devoting all or part of their time to selling or promoting the use of commercial gas. Changes have been made in old commercial gas equipment and new equipment has been developed. It is therefore necessary that gas men be familiar with this new equipment and changes that have taken place, and they must know how to select and arrange equipment to obtain the best results for their customers.

The five-day program will provide instruction in the full scope of commercial gas utilization in the volume food service field. The faculty for this Commercial Gas School is composed of men who have a comprehensive knowledge based on wide experience in commercial work. The men who attend this school will receive a good foundation on which to build a successful sales record. New men especially need this training course to be able to secure commercial gas loads in a highly competitive market. The complete course is as follows:

Monday—May 12, 1947

THE GAS INDUSTRY—The history and growth of the gas industry, the sources of gas and methods of manufacture, transmission and distribution. The utility and its service to the community.

THE MARKET I—The food service industry, what it does and its size; the position of gas, types of public eating places; the replacement market in relation to the new market; needs for modernization.

THE MARKET II—Market analysis and what it includes; effects of competition on replacement and new market; extent of market, dishwashing, water heating, space heating, steam boilers and air conditioning; market surveys and sources of information on new eating places.

GAS COOKING EQUIPMENT

The Functions and Capacities of Each Appliance Will Be Described by an Expert.

Ranges
Broilers

Tuesday—May 13, 1947

Roasting Ovens
Deep Fat Fryers
Warming Tables
Vegetable Steamers
Griddles
Coffee Urns
Water Heaters
Baking Ovens
Thermostats and Controls
Stock Kettles
Sterilizers
Toasters
Dishwashers

A cooking demonstration will be given by a chef who will show how various foods are best cooked, how they are prepared for cooking and decorated for serving; the preparation of sauces and other special concoctions for quality food service.

Wednesday—May 14, 1947

GAS COOKING EQUIPMENT (Continued)

RELATION OF GAS APPLIANCES TO KITCHEN FUNCTIONS—Roasting sections, broiling sections, frying sections, ranges, steamers, kettles, cookers, bain maries, steam tables, warmers.

COOKING OPERATIONS—Boiling, broiling, baking, roasting, stewing, frying, sauteing, braising, and fricasseeing and the uses of gas in these operations.

KITCHEN DEPARTMENTS—Description of the various departments in the kitchen of a large hotel or large restaurant.

PLANNING A NEW KITCHEN—The pre-plan analysis: size of place and type of meals; maximum number of meals served; cooking appliances and accessory equipment needed.

KITCHEN VENTILATION—Design factors for hoods, comparative conditions, gas vs. electricity, with respect to temperature and humidity; ventilation requirements.

PLANNING MODERNIZATION I—Holding gas load against competition and displacing competitive equipment; present gas costs and estimated cost of competitive fuel; comparative costs including repairs, maintenance, retirement expense, etc.

PLANNING MODERNIZATION II—With no competitive fuel threat how to check appliances for: condition, age, appearance, size, capacity; layout and efficiency; possible accessories.

Thursday—May 15 ,1947

KITCHEN LAYOUTS—The procedure followed in making a layout for kitchens in various types and sizes of restaurants illustrated wtih plans, pictures and detailed data.

COMPETITIVE FUELS I—Coal, coke, charcoal and oil; types, grades, storage, utilization, price trends, amounts required, power costs; claims made for each and the answers thereto.

COMPETITIVE FUELS II—Electricity, its terminology and characteristics; transmission; generation and power factor demand, coincident demand with reference to other uses than cooking. Utilization in the commercial kitchen, sizes and capacities of various appliances, prices and installation costs; claims for and the answers thereto.

FUEL AND ENERGY COMPUTATIONS AND COMPARISONS—The energy ratios; overall kitchen values for various types of eating places and fuels; values for specific appliances. The total cost of cooking including fuel maintenance and repairs, service, retirement expense and miscellaneous costs. Rates and how to figure costs.

CUSTOMER CONTACTS—The steps in developing customer confidence and goodwill; the right man to see; periodic calls with helpful hints; analyzing customer attitudes and equipment trend.

Friday—May 16, 1947

INSTALLATION PROCEDURE—Checking meter sizes, pipe and service; accessibility for equipment delivery; condition of walls, floors, flues and exhaust fans; equipment adjustment and use; appliance service companies.

SELLING TOOLS—Making good use of handbooks, catalogs, testimonials, proposals and test data.

SELLING TECHNIQUES—The fundamentals of organizing sales efforts and making a successful sales presentation.

INDUSTRY PROGRESS—A review of the accomplishments of the industry and a look at immediate and future problems.

gas grapevine

Baby Hippo Has Private Bath, so reads a headline in "The Blue Blaze" (Lone Star Gas Co., Dallas). It seems that Bluebonnet Bell (weight 800 lbs.), made history when she took a plane ride from Memphis, Tenn., to Fort Worth, Texas. On arrival at her new home, The Forest Park Zoo, she found an innovation for hippopotomuses, a private bath equipped with controlled temperature water supplied by a gas-fired water heater. Her living quarters are gas-heated through a controlled wall heater. Both room and bath water temperature are maintained at 60° F. during the winter months.

Industrial and commercial gas is pretty important in this here gas business represented by our A. G. A. Industrial and Commercial Gas Section to wit and viz: With only 6.6% of the country's meters, we account for 64.1% of the therm consumption, and reap 36% of the revenue. Let us keep pushing I & C Gas and steadily improve these figgers.

You'll hear how really important industrial and commercial gas is if you'll attend our Section's annual conference in Boston, March 17, 18 & 19.

They say there's nothing new under the sun, but ye scribe ran into a gas installation the other day in Detroit where a commercial bakery adapted the principle of an industrial salt bath furnace to cook english muffins. Watch for the story, it's a honey and the muffin cooker has been giving perfect service for over three years. They haven't lost a muffin yet!

In a couple of months there will be a humdinger of a story on convection heating with gas. There's a brand new installation for paint drying on auto bodies that looks like something out of Buck Rogers—and it certainly does the job, but fast.

The next time you cast for that rainbow trout with your split bamboo rod give a thought to the part gas played in producing the attractive finish on the rod. Keep an eye on the gas magazines for a picture story on how it's done.

Goin' to school in May?

a.q.s.

SCHOOL LUNCHROOM EQUIPMENT

(Continued from page 120)

individually controlled to keep each type of food at the temperature desired, such as meats at 145 degrees, mashed potatoes at 125 degrees and soups at 180 degrees.

Now we come to the matter of selecting specific equipment needed by a particular school lunchroom. This subject is far too detailed for me to discuss here, but there are three general things which need to be considered. These are: the cooking requirements involved, the space available, and the amount of money which can be spent.

The best discussion of these subjects which has come to my attention is a pamphlet recently published by the United States Office of Education in conjunction with the Federal Security Agency. It discusses all three elements thoroughly and practically, and can be obtained from the Superintendent of Documents, United States Printing Office, Washington 25, D. C. for ten cents.

Specific help in the layout of a new school lunchroom is furnished by the Department of Agriculture through the School Lunch Division of the Production and Marketing Administration. They have drawn up plans for lunchrooms ranging from the small school serving 75 pupils to large ones serving as many as 500 lunches daily. If you decide to order these plans, be sure to specify the approximate number of people to be served,

One of the biggest obstacles you will meet in attempts to establish lunchrooms in existing schools is the difficulty of securing sufficient space. One method of coping with this problem in cities or towns which are large enough to have several schools is to establish a central kitchen to supply all the schools.

In addition to saving space, this set-up has several other recommendations. It enables menus to be standardized, allows better control of purchases, simplifies the delivery of supplies, cuts food waste to a minimum, requires a considerably smaller investment in equipment and less experienced personnel to operate.

The feasibility of this plan has been proved by the Industrial Food Service Co. of Pittsburgh. During the war, when hot lunches were in demand for thousands of war workers, the company started operations. Hot meals were delivered in thermos-containers to many industrial firms within a radius of 40 miles of the kitchen. The arrangement was profitable for all concerned, and was extremely well received by the workers.

In closing, I wish to list several specific rules which should be followed closely if the project is to work in a manner which will bring satisfaction to the school and create good will for the gas company.

(1) Sell or promote the sale of only the most modern and efficient equipment from the most reputable manufacturers. Pay particular attention to the insulation and heat controls.

(2) See that each oven deck is controlled and fired separately.

(3) See that ranges are set on raised platforms to prevent rusting of the bottoms by the water used in mopping floors.

(4) Be sure that the manufacturer is informed of the kind of gas to be used and that he furnishes the proper burner equipment for that gas.

(5) Be sure the gas pressure is properly regulated to that specified for the equipment.

(6) Vent all equipment properly, following the maker's instructions.

(7) Adjust the burners and check the thermostats before the equipment is put into operation.

(8) Give full and careful instructions for the care of the equipment.

The school-lunch program offers a lucrative field for the gas company. If it is promoted well and sold wisely, both the school and the company will profit and a public need will be served.

NOTE ON YOUR CALENDAR

A. G. A. Sales Conference on Industrial and Commercial Gas, March 17-19—Copley Plaza Hotel, Boston

National Restaurant Exposition, A.G.A. Commercial Gas Cooking Center, March 25-27—Hotel Stevens, Chicago

Industrial Gas School—week of May 5—Hotel Seneca, Columbus, Ohio

Commercial Gas School—week of May 12—Washington Gas Light Co., Auditorium and Lewis Hotel School, Washington, D. C.

National Metal Congress & Exposition, October 20-24—Amphitheater—Chicago

National Hotel Exposition, November 10-14—Grand Central Palace, New York

Technical Section

Organic Sulfur Removal Process

Development of the organic sulfur purification process referred to here was described in an article by E. J. Menerey entitled "Process for the Reduction of Organic Sulfur in City Gas" which appears on pages 1082-1085 of the 1931 A. G. A. PROCEEDINGS. Publication of this data is sponsored by the A. G. A. Organic Sulfur Committee, Dr. E. W. Guernsey, chairman.

BY F. H. DARLINGTON

General Superintendent, Peoples Gas Co., Glassboro, N. J.

THE organic sulfur purification process in use for the past 17 years at a New Jersey glass plant was designed to reduce the organic sulfur content of carbureted blue gas from 15 grains to less than three grains. The plant is located at the end of a high-pressure gas main about 17 miles from our works and the process operates under ten lbs. pressure.

The gas to be purified is first preheated by passing through a superheater made of 2-inch pipe located in the crown of the glass-annealing lehr, subject to temperatures up to 1100° F.

Leaving the superheater through a heavily-insulated discharge line in the crown of the lehr, the gas enters the top of the catalyst chamber at a temperature of 800° F. or higher. It passes downward through four layers of catalyst material, each one foot thick. The chamber itself consists of a brick-lined 24-inch standard steel pipe heavily insulated on the outside. The temperature at the bottom of the chamber is 650° or higher. A mean temperature of 700° to 800° gives good results and is not destructive to the equipment. Temperatures above 1000° F. cause excessive damage. Stainless steel trays and supports are used to hold the catalyst in the gas stream.

Fine dust and condensable vapors are removed next by passing the gas through a dust-trap built into a vertical air-cooled condenser pipe which cools the gas to about 100° to 150°. From this it travels to a six foot diameter by six foot high two-layer oxide purifying box on the outside of the building. After removal of H_2S formed in the catalyst chamber, the gas returns directly to the burner manifolds on the lehr.

Revivification of the catalytic material is required weekly. Up to eight cubic feet of air per minute is circulated through the system for about 12 hours. The material, consisting of magnesium sulfate and zinc oxide, lasts about six months minimum and is then replaced. About 50 percent recovery of lump material is usually realized and is used over. The oxide purifier has only required a change of oxide at intervals of about three years.

The equipment has been operated at an average rate of 2500 cubic feet per hour with a maximum of about 4000 cubic feet per hour.

All equipment with the exception of the superheater has a life of 20 years or more. It has been necessary to replace or at least recondition superheater coils at intervals of one to two years.

ANNUAL COST OF OPERATION

Weekly Revivification

Labor—1 hr. @ $1.00	$ 1.00	
Carbon Dioxide	1.50	
Electric Current	.65	
	$ 3.15	$163.80

Semi-annual Catalyst Change

Labor—36 man hrs.	$ 36.00	
Catalyst—250 lbs.	150.00	
	$186.00	$372.00

Tri-annual Oxide Change

Labor—40 man hrs.	$ 40.00	
Oxide—100 bushels	35.00	
	$ 75.00	$ 25.00
Annual Cost of Operation		$560.80

Gas Purified = 21,600 M.C.F. @ 2.6 cents per M.C.F.

Including interest (5 percent) and depreciation (5 percent) on equipment at estimated present reproduction cost of $6000, total cost of purification is about 5.4 cents per M.C.F.

EQUIPMENT COST

Superheater (2" extra heavy seamless steel pipe)	$ 200.00
Catalyst chamber and trays (24" x 5'7" outside)	350.00
Dust catcher & condenser (16" and 6" pipe)	150.00
Purifier box and crane (6' diam. x 6')	1300.00
Circulating air cleaner (6" pipe)	50.00
Blower, motor and starter (size 12, 2 H.P.)	250.00
Controller for air	100.00
Chain block and trolley (1 ton)	100.00
Piping and valves	250.00
Insulation	125.00
Installation	625.00
Original cost	$3500.00
Present est. cost	$6000.00

Burning Coal Mine Yields Synthetic Fuel Gas

THE Alabama coal mine set afire recently in the country's first test to determine the feasibility of gasifying coal underground, is producing a gas satisfactory for the manufacture of synthetic fuels, reports Dr. R. R. Sayers, director of the Bureau of Mines.

Preparations for the test in which a part of the Gorgas mine near Jasper, Ala., was fired in a joint experiment by the Bureau of Mines and the Alabama Power Co., were described in the January issue of the A. G. A. MONTHLY.

The power company wants to pipe gas from a burning coal seam directly to the boilers of a near-by plant to supplant coal.

The Mines Bureau is interested in underground gasification as a new source of raw material for the manufacture of synthetic fuels, a gas for feeding boilers in industrial plants, and as a possible substitute for water power, through use of gas turbines in dry areas of the Rocky Mountain region and the West.

Pipeline Expansion

COLUMBIA Gas & Electric Corporation's Charleston and Pittsburgh groups have asked the Federal Power Commission for authority to expand present facilities served by the Columbia companies, including Washington Gas Light Co., The Manufacturers Light and Heat Co. and Home Gas Company. Total cost has been estimated at $25,492,040.

Distribution and Motor Vehicle Conference in April

J. H. Collins

PLANS for the Distribution and Motor Vehicle Conference, sponsored by the Technical Section of the American Gas Association, were discussed January 13 in New York at a meeting of the two committees in charge of the conference. The conference will take place April 14-16 in the Hotel Cleveland, Cleveland, Ohio. J. H. Collins of New Orleans, chairman of the Distribution Committee, and B. D. Connor of Boston, chairman of the Motor Vehicle Committee, led the discussion.

B. D. Connor

The tentative program calls for general sessions, including both distribution and motor vehicle subjects, on Monday and Wednesday mornings. Three round-table luncheon meetings will be held Monday afternoon divided as follows: Meters and Metering, Corrosion, and Motor Vehicle Developments. An inspection and demonstration at the A. G. A. Laboratories in connection with the work of the Subcommittee on Work on Consumers' Premises has been arranged for the same afternoon.

Tuesday has been set aside for three all-day conferences devoted to (1) Construction and Maintenance combined with Distribution Design and Development, (2) Motor Vehicle Operation, and (3) Work on Consumers' Premises. Reports of subcommittee and an open forum will conclude the program on Wednesday afternoon.

Among the distribution topics on the tentative schedule are: Conserving Sendouts in Emergency and Restoring Gas Service in Major Outages; Economics of High and Low Pressure Distribution Systems; Operating, Installation and Maintenance Practices Dealing with Gas Service Piping; General Service Policies; Heat Induction in Meter Stripping Operations.

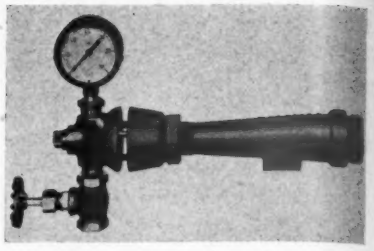
The motor vehicle committee will sponsor topics on the use of automotive equipment in distribution activities, including driver training, and will present a subcommittee report on truck body design.

Addresses by Association officers and other industry leaders will round out the program.

Tennessee Pipelines

TENNESSEE Natural Gas Lines, Inc., Chattanooga, has applied for F.P.C. authority to construct facilities to make natural gas available to the Chattanooga and Knoxville, Tennessee areas.

The company has entered into a contract with Tennessee Gas & Transmission Co. whereby the latter has agreed to supply all of the requirements of Tennessee Natural Gas Lines' proposed markets.



Hijector with valve and gage

High-Pressure Gas-Mixer

PRODUCTION of a venturi mixer for high-pressure gases, incorporating improved mechanical design features, is announced by the Industrial Division, Bryant Heater Co., Cleveland.

Known as the "Hijector," the new unit uses gas under pressures up to 35 pounds to entrain all the air needed for combustion and to deliver the mixture to burners at the highest possible pressure.

Overall length of the unit is substantially reduced over conventional designs by rearrangement of the elements for servicing ease.

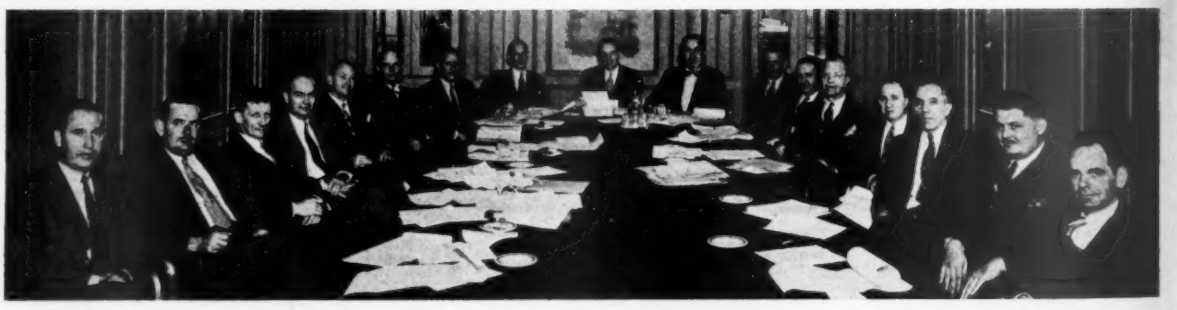
By reversing the usual operation of the air shutter and locating it on the body, the orifice spud is accessible for removal without disconnecting any piping.

Air entrainment noise is reduced, while the orifice and air entrainment areas are readily accessible for inspection or cleaning. The shutter, though backed entirely out of the way, cannot be disassociated from the mixer and become lost.

Available in pipe sizes from ¾-inch to 4-inch, the Hijector is suitable for use with all types of gases, including LP-gases.

Hijector specifications and capacity tables for gases ranging from 500 to 2,500 B.t.u. are included in Data Sheet 5B-1, available on request to the company.

Committee Plans Utilization of Radio for Utilities



Recent meeting in Chicago of Committee 4, Panel 13, Radio Technical Planning Board, which is actively engaged in coordinating the work of "frequency allocations" and other related matters in connection with the utilization of radio communication for gas, electric, water and steam utilities and companies.
Left to right: H. R. Blomquist, New England Power Assn., Boston; R. D. Palmer, Iowa Rural Electric Assn., Des Moines; J. G. McKinley, West Penn Power Co., Pittsburgh; G. P. Fallon, Consolidated Gas & Elec. Co., Baltimore; C. T. Malloy, So. Calif. Edison Co., Los Angeles; G. H. Underhill, Central Hudson Gas & Elec., Poughkeepsie; A. A. Meyer, Detroit Edison Co., Detroit; H. L. Davis, Jr., Philadelphia Electric Co., Philadelphia; R. V. Dondanville, Commonwealth Edison Co., Chicago; E. D. Glatzel, Detroit Edison Co., Detroit; Lee O'Dell, Kansas City Power & Lt. Co., Kansas City; T. J. McElhattan, Panhandle Pipeline Co., Kansas City; C. S. Young, Penn Power & Lt. Co., Allentown; A. Damiano, Hackensack Water Co., Hackensack; W. T. Bulla, Natural Gas Pipeline Co., Chicago; T. J. Humphries, Birmingham Gas Co., Birmingham; L. M. Moore, Rural Elec'n. Adm., Washington.

Laboratories

ARTHUR F. BRIDGE, Chairman

R. M. CONNER, Director

Koch Is Appointed Assistant Supervisor

Charles E. Koch

APPOINTMENT of Charles E. Koch as assistant supervisor of the Pacific Coast Branch of the American Gas Association Testing Laboratories has been announced by R. M. Conner, Director.

At the same time Mr. Conner announced that Alfred A. Jacquot, chief inspector at the Los Angeles branch, had resigned to become affiliated with the Detroit Brass & Malleable Works as a sales engineer.

Alfred A. Jacquot

Mr. Koch returns to the Laboratories' staff after five years of broad experience in the gas appliance field, having been associated with the General Water Heater Corp. of Burbank, Calif., as assistant chief engineer since 1941. He was in charge of process and quality control in the plating department, tooling operation planning, machine design for plant production, research on domestic water supply, and corrosion of water heater tanks. During the war Mr. Koch handled tool design and plant layout, supervised production and also headed the inspection department of the corporation's war activities.

A graduate of Oregon State College with a degree in chemical engineering, Mr. Koch first joined the Laboratories in 1939.

Mr. Jacquot, who completed nearly ten years of service with the Laboratories, is returning to Los Angeles after visiting the home office of his company in Detroit. He will be available to gas appliance manufacturers on the Pacific Coast for discussion and assistance in engineering problems and the development of new ideas in the application of his company's products to gas appliances.

Mr. Jacquot also was graduated from Oregon State College as a chemical engineer. Joining the Laboratories' staff at Cleveland in 1937, he was transferred to Los Angeles in 1938 and appointed chief inspector in 1939.

Strengthening Conversion Burner Standards

RECOMMENDATIONS for strengthening present requirements for conversion burners in line with technical studies and field reports were formulated at a meeting of the supervising committee, held at the A. G. A. Laboratories on January 15 and 16.

Additions to present listing requirements initiated at the previous meeting were discussed further and general agreement reached on principal features. Major discussion centered around formulation of more stringent pilot performance tests. Much attention was also given to testing of conversion burners in gas furnaces in addition to boilers. Remaining details were scheduled for review at a meeting February 18 and 19. It is expected that revised standards will then be adopted for presentation to the Approval Requirements Committee for approval at its March meeting so that testing of conversion burners under these strengthened requirements may be undertaken immediately.

Requirements for installation of conversion burners will also be reviewed following completion of revision of the listing standards. As the initial step, copies of procedures now in use will be secured and analyzed for later committee consideration.

Convention Delegates Visit Laboratories

ONE of the busiest weeks in the history of the American Gas Association Testing Laboratories occurred during the recent convention of the American Society of Heating and Ventilating Engineers in Cleveland.

More than 260 delegates to the convention took the opportunity while in Cleveland of visiting the Laboratories and acquainting themselves at first hand with testing and research activities in progress there.

One hundred and fifty delegates who made an official tour of the Laboratories heard an address by K. R. Knapp, assistant director, who briefly outlined the history and objectives of their testing and research programs. An inspection tour followed. To allow the visitors to observe operations more closely, separate small groups were conducted through the building by individual guides. A number of the visitors also conferred individually with department heads.

An additional 116 delegates called informally throughout the week for inspection and conference purposes. Several Laboratories staff members likewise availed themselves of the opportunity of visiting the A.S.H.V.E. exhibition. Members of the research staff also attended meetings of a number of research committees.

New Building Completed At Laboratories

MORE than 2,000 square feet of additional floor space has been provided for testing operations at the Pacific Coast Branch of the American Gas Association Testing Laboratories by the completion of a large Quonset structure directly adjoining the present building.

The new addition, which provides a floor area of 40 by 52 feet, is now in use for shipping and storage of gas appliances awaiting test. It releases a similar amount of space formerly used for the purpose in the main building, thus making available additional testing facilities for manufacturers of gas equipment.

In addition to the new building, black top surfacing has been laid between the main building and the street, providing additional parking space for visitors to the Laboratories.

Propane-Air Gas Plant In Operation

APPROXIMATELY one-half of a new propane-air gas plant to supplement the coke oven gas and carbureted water gas production of The Brooklyn Union Gas Co. has been completed at the company's Greenpoint works and is now in operation. The new system when completed will have a production capacity of 12,000,000 cubic feet a day.

The installation adds to the flexibility of the works in addition to boosting production on peak days. It consists primarily of a tank farm, gas-air machines, a vaporizer and propane unloading and handling equipment. Seven of the proposed 14 tanks have been installed. When the tank farm is completed it will have a storage capacity permitting operation of the gas-air process for six days before replenishing the supply.

Texas-Pennsylvania Gas Line Planned

MEMPHIS Natural Gas Co. has applied to the Federal Power Commission for permission to build a $63,300,000 pipeline from East Texas to Western Pennsylvania.

The proposed 24-inch line would be laid in three parts with the first part to be put in operation by April, 1949. It would extend 669 miles from the east Texas gas fields to connect with Louisville Gas & Electric Co. southeast of Louisville, Ky. This portion, which would have an initial capacity of 100 million feet a day, would also connect with the Kentucky Natural Gas Co. system.

The second section would extend 290 miles from Louisville to Clarington, Ohio, and the third a distance of 57 miles eastward to Greene county, Pa., 25 miles south of Pittsburgh.

The second section would increase the total capacity to 220 million cubic feet a day and the third to 295 million cubic feet.

Personal and Otherwise

Campbell Retires

Geo. S. Campbell

Myron G. Thomas

GEORGE S. CAMPBELL, Pasadena district manager of the Southern California Gas Company since 1932, retired on February 1 after 43 years with the company, and is succeeded by Myron G. Thomas, assistant district manager.

Mr. Campbell came to Pasadena in 1903 and began work with the gas company immediately upon completing his high school and business college education. He is widely known in the Pasadena area for his active participation in civic affairs and is continuing these interests following retirement.

Bryant Representatives

ESTABLISHMENT in Clearwater, Florida, and Jamestown, New York, of two new representatives for the Bryant Heater Company's line of gas-fired heating equipment has been announced by James N. Crawford, vice-president in charge of sales for the company.

In Jamestown, Philip W. McCoy has established the Bryant-McCoy Company at 10th and Monroe Streets. Mr. McCoy, a graduate of Carnegie Institute of Technology, has been engaged in the design and development of domestic heating equipment since 1927, both with Bryant Heater Company and, previously, with Surface Combustion Company. He is a member of the American Society of Heating & Ventilating Engineers, and is a registered industrial engineer in the state of Ohio.

The Bryant-Schaack Company has been established at 1011 Pine Brook Drive in Clearwater, Florida, by Paul J. Schaack, who has been with Bryant Heater since 1934, in Cleveland and in Pittsburgh. A graduate in mechanical engineering of Rose Polytechnic Institute, he served during the war years as assistant to the director of the Plumbing and Heating Division of the W.P.B.

I. G. T. Graduate Joins Gas Industry

THOMAS L. PELICAN recently became the first Institute of Gas Technology graduate to accept a position in the gas industry when he joined the engineering staff of the Natural Gas Pipeline Company of America.

Mr. Pelican received his bachelor's degree in Chemistry at Colorado College in 1942 and his master's degree in Gas Technology from I.G.T. in 1944. Following the war he took a semester of refresher work at I.G.T. this past term. His summer training courses were given by the Southern California Gas Co. and the Colorado Interstate Gas Company.

His master's research problem was a study of the dehydrogenation of propane using chromia-alumina catalyst.

Rockwell Appointments

THREE appointments to the executive staff of the Rockwell Manufacturing Co., Pittsburgh, have been announced by W. F. Rockwell, Jr., vice-president and general manager.

C. A. Wiken, for the past eight years chief engineer of the Delta Manufacturing Division in Milwaukee, has been promoted to vice-president in charge of engineering for the Rockwell Manufacturing Company.

J. E. Ashman has been named controller of the Rockwell Manufacturing Company.

A. E. McIntyre, who for the past several years has been manager of the Nordstrom Valve Division plant in Oakland, California, has been transferred to Pittsburgh as general manager of the company's Pittsburgh Equitable Meter Division. He will continue to serve as manager of the Nordstrom Valve Division.

New Honeywell Officers

L. M. MORLEY has been named a vice-president of the Minneapolis-Honeywell Regulator Co., and Lynn H. Johnson has been appointed sales manager of the Company's Gas Controls Division, Harold W. Sweatt, president, announced recently.

Mr. Morley is now vice-president in charge of sales for the Brown Instrument Co., a wholly-owned Honeywell subsidiary at Philadelphia, and will continue to supervise sales of the industrial control devices made by the Brown Division. His newest promotion thus makes him an officer of the parent company as well as its subsidiary.

In his new assignment, Mr. Johnson will serve under C. D. Lyford, vice-president in charge of the Gas Controls Division.

Delaware Utility Promotes Clift

Harold W. Clift

HAROLD W. CLIFT has been appointed assistant operating manager—gas, Delaware Power & Light Co., Wilmington, effective January 20, R. B. Richardson, operating manager, reports.

Mr. Clift joined the Wilmington Gas Company following his graduation from the University of Delaware in 1924. In June, 1928, he became assistant plant superintendent. In February 1931, he was appointed assistant superintendent of the service department and five years later was promoted to gas engineer for the Delaware Power & Light Company, which position he held until his current appointment.

"Hall of Flame"

THE "Hall of Flame" custom, inaugurated at the 1946 A. G. A. Conference on Industrial and Commercial Gas Sales in Toledo, is to be a regular feature at annual conferences of the Industrial and Commercial Gas Section.

Certificates will be presented at the Conference to be held in Boston, March 17-19, to those men who have made contributions to the gas industry according to a system of points for various activities. At a recent meeting of the Section Managing Committee it was decided to extend the scope of the awards back to the founding of the Association. Last year's awards took into consideration only those men active during the past 10 years.

The Association has been unable to locate two men who were awarded certificates last year, and if any readers know their whereabouts, please notify the secretary of the Industrial and Commercial Gas Section. They are: F. C. Mackay, last known address, Federal Electric Co., Chicago; and Horace C. Clark, last known address, United Public Service Co., Chicago.

Incinor Managers

APPOINTMENT of Edward M. Brody as district manager for the Indiana-Kentucky-Tennessee-Mississippi area, has been announced by M. A. Naulin, sales manager of the Incineration Division of Bowser, Inc., manufacturers of gas-fired Incinor.

The company has also announced the appointment of H. W. Dodge for the New England and Eastern States area, George H. Hand for the Ohio-Michigan and western Pennsylvania area, and J. T. Prout for the Middle-West area.

A censor is a guy who sticks No's into other people's business.

Potter Appointed Assistant to President

L. T. Potter

D. A. HULCY, president of Lone Star Gas Co., headquarters at Dallas, Texas, has announced the appointment of L. T. Potter to the newly created position of assistant to the president. Mr. Potter has been superintendent of production and assistant general superintendent of the transmission division of the company. He has been with Lone Star a little more than 18 years.

In his new position Mr. Potter will assist the president in duties affecting all branches of the company. He is a graduate of Texas A. & M. College. He was transferred from field work in 1931 to Lone Star's Dallas office, and was appointed assistant production engineer. He was promoted to chief production engineer in 1939, and to production superintendent in 1941. In 1945 he was assigned additional duties of assistant general superintendent of Lone Star under Julian L. Foster, general superintendent.

Simultaneously with the announcement of Mr. Potter's promotion, Elmer F. Schmidt, vice-president of the company in charge of the transmission division, announced the following changes in personnel in that division:

Thomas S. Bacon promoted from research engineer to chief engineer; Richard A. Minter promoted from office engineer to assistant chief engineer, and Edgar Allen Brown promoted from chief Production engineer to superintendent of production.

Home Service Changes

MICHIGAN Consolidated Gas Company has named Frieda H. Barth director of the home service department of the Detroit District. Miss Barth has served with the company for 16 years. Irene Hickey, who opened the department 17 years ago, and has been on the inactive list for the last year and a half due to illness, becomes executive advisor of the home service department. Both Miss Barth and Miss Hickey are graduates of Iowa State College at Ames.

Servel Appointments

SERVEL, Inc., Evansville, Ind., has made several changes in its regional personnel, according to an announcement by George S. Jones, Jr., vice-president in charge of sales. All changes are effective March 1.

C. A. Miller, who has been west coast regional manager for 11 years, with headquarters in San Francisco, has resigned to become a company distributor in Los Angeles. Operating as Gas Appliances, Inc., Mr. Miller will take over the distribution of the Servel refrigerator, water heater and kitchen accessories. Mr. Miller has been with the company since its earliest days, serving in various capacities in the service and sales division.

Seward Abbott, now regional manager in Dallas, Tex., has been appointed to succeed Mr. Miller as west coast manager. He has been associated with the firm since 1926.

W. K. Grube, present regional manager in Evansville, will go to Dallas to replace Mr. Abbott. O. F. Keune, currently district manager with headquarters in Atlanta, has been appointed to succeed Mr. Grube. Mr. Grube has been with Servel since 1934. Mr. Keune joined the company in December 1945 after his discharge from the Army. Prior to that he had been with the Florida Light and Power Co. for 17 years.

Two Promotions at American Meter

W. G. Hamilton, Jr.

ARTHUR F. BENSON has been appointed production manager and William G. Hamilton, Jr., sales manager of the American Meter Company and its subsidiaries, effective January 1, 1947.

Mr. Benson, a specialist in the development of displacement and orifice measurement of gases and liquids, and pressure and volume control, will continue as chief engineer. He has served with the company since 1930.

Mr. Hamilton joined the firm in 1927. He became assistant manager of the Philadelphia factory in 1941 and was placed in charge of war production. He was appointed manager of Philadelphia operations in September, 1945.

Sanders Receives Southwestern Post

PROMOTION of Horace Sanders to assistant southwestern district manager for The Cooper-Bessemer Corp., effective January 1, has been announced by Stanley E. Johnson, vice-president and director of sales.

Mr. Sanders has been associated with Cooper-Bessemer for nearly 20 years and is well-known throughout the southwest territory, having been active in engine and compressor sales and engineering for the past 13 years.

In his new capacity, Mr. Sanders will assist A. A. Burrell, southwestern district manager, in the administration of company sales and service in that area.

Occupation is one great source of enjoyment. No man, properly occupied, was ever miserable.

—L. E. Landon.

Central Arizona Vice-President

F. T. Fahlen, Jr.

THE Central Arizona Light and Power Co., Phoenix, Arizona, recently divided its expanded territory into four divisions, and announced the election of F. T. Fahlen, Jr., as vice-president in charge of division operations.

Mr. Fahlen, former assistant vice-president, has complete charge of operations in the Phoenix area and also has supervision of the divisions which were formed to better serve the needs of the company's growing service area.

Except for two years of Navy service, Mr. Fahlen has been associated with the Arizona utility for more than 13 years.

Immediately following his graduation from the University of Arizona in June, 1933, Mr. Fahlen joined the company as a collector and interviewer. He also worked as a watchman, groundman, apprentice lineman and helper in the electric plant and served in the gas department as a troubleman and changeover man. Later he became a residential and commercial salesman, and then lighting engineer.

In 1936 he was appointed manager of the company's Tempe district, and later became Phoenix district manager. He was made supervisor of all districts in 1940. On July 1, 1946, the utility's board of directors elected Fahlen to the position of assistant vice-president.

Celebrating second anniversary broadcast of the Boston Consolidated Gas Co. radio show, "Quizzing the Wives," are quizmaster Lester Smith, John J. Quinn, Boston Consolidated sales manager, Robert Haydon Jones, and Jeanne Ambuter, of Alley & Richards Co.

Associated Organization Activities

Southern Gas Association Annual Convention

RESERVATIONS are now being made for the thirty-sixth annual convention of the Southern Gas Association at the Buena Vista Hotel in Biloxi, Miss., April 17 and 18.

Nationally known speakers will discuss the New Freedom Gas Kitchen, dealer relations, postwar use of the "CP" program, production trends, the outlook for management and labor.

Other topics to be covered include S.G.A. methods for detecting and reducing leakage in gas distribution systems, corrosion control and protection methods for underground gas pipelines, commercial air conditioning with gas, dehumidification, planning commercial kitchens, dehydration processes, industrial research in the south and southwest, and numerous other subjects.

A home service workshop, an accident prevention round-table, a Southwestern personnel conference, and an industrial and commercial round-table are scheduled to precede the convention on April 16.

Southwestern Gas Measurement Course

PROGRAM plans for the twenty-second annual Southwestern Gas Measurement Short Course to be held at the University of Oklahoma, May 6, 7, and 8, 1947 were drawn up at a recent meeting of the general committee.

Approximately 60 subjects covering gas measurement and regulation and related work will be covered in classes and general assembly meetings during this year's three-day session.

The course is sponsored annually by the University of Oklahoma College of Engineering; the Oklahoma Corp. Commission; Kansas Corp. Commission; Arkansas Oil and Gas Commission; Oklahoma Utilities Association; American Gas Association, Natural Gas Department; the Natural Gasoline Assoc. of America; and the Southern Gas Association.

The course aims to provide the various associations and commissions, and the gas, gasoline and oil companies, a means of getting together to study problems of measurement and regulation of dry and casinghead gas. Twenty-four states, as well as Canada and Russia, were represented in the enrollment of 787 for last year's meeting.

Proceedings of last year's Course have been received by Dean Carson, and will be mailed to all who attended. Additional copies are available at a cost of $1.75 from Dean Carson, University of Oklahoma.

N. E. G. A. Annual Business Conference

THE twentieth annual business conference of The New England Gas Association at the Hotel Statler, Boston, on March 20 and 21, will be featured by 16 presentations covering a wide variety of subjects, according to an announcement by L. E. Knowlton, Providence Gas Co., and president of N.E.G.A.

The directors of the American Gas Association will meet in Boston in conjunction with the N.E.G.A. meeting and the A. G. A. Commercial and Industrial Sales Conference will be held in Boston on the three days preceding the N.E.G.A. meeting. The N.E.G.A. Program Committee has invited the A. G. A. to present a comprehensive exhibit of printed material at its meeting.

The program for the business conference will include speakers covering production research and developments, management-labor relations, sales promotion, liquefied petroleum gas, commercial and industrial subjects, dealer cooperation sales plans, 1947 sales fundamentals, gas industry economics, public relations, 1947 management problems and opportunities, the approach of natural gas to New England and the observations of a business historian on business changes today.

The presidents of the A. G. A. and the N.E.G.A., the first vice-president of the Gas Appliance Manufacturers Association, and the executive secretary of the N.E.G.A. will complete the program, together with the election of officers and directors. In addition, there will be a breakfast on the second morning of the conference, sponsored by the N.E.G.A. Home Service Group.

According to A. V. S. Lindsley of Waterbury, chairman of the program committee and vice-president of The Connecticut Light & Power Co., the conference program will include several faculty representatives of New England institutions of higher education.

Pennsylvania Gas Sales Meeting

A BANNER year for the gas industry was predicted at the mid-year sales conference of the Pennsylvania Gas Association held at the Benjamin Franklin Hotel, January 31.

A record-breaking attendance of 250 gas company members and guests heard officials of the industry urge a united front for gas fuels because of an anticipated expansion of gas uses during the coming year.

Participating in the all-day conference were: Gordon M. Jones, chairman, P. G. A. New Business Committee, Frank H. Trembly, Jr., The Philadelphia Gas Works Co. and president, P. G. A. A playlet dramatizing the history and possibilities of the industry was one of the features of the morning session. Addresses by Harold Massey, assistant managing director, Gas Appliance Manufacturers Association, and Ronald A. Malony, sales manager, The Bridgeport Gas Light Co., preceeded a luncheon meeting at which John F. Davis, delegate-at-large to the conference, was heard.

The final session of the conference featured talks on the gas industry by George P. Gable, president, Pennsylvania Retailers' Association, Colonel George A. Burrell, president, Atlantic States Gas Co., and E. Carl Sorby, vice-president, the George D. Roper Corporation.

Pennsylvania Group Elects New Officers

E. M. Borger

A 1947 slate of officers and committee members was elected at the annual business meeting of the Pennsylvania Natural Gas Men's Association, held at the William Penn Hotel, Pittsburgh, on January 15.

E. M. Borger, The Peoples Natural Gas Co., Pittsburgh, was elected president of the association; D. P. Hartson, Equitable Gas Co., Pittsburgh, vice-president; P. L. Kesel, secretary-treasurer; Mark Shields, executive secretary, and B. H. Smyers, Jr., counsel.

The following committee chairmen were selected: Finance, C. T. Harmon; Membership, I. K. Peck; Program, G. C. Grow, Jr., and Technical, Dr. R. W. Miller.

President Borger appointed the following members to represent the Association on A. G. A. managing committees: Accounting Section, H. D. Borger; Industrial and Commercial Gas Section, P. W. Craig, Equitable Gas Co.; Residential Gas Section, Christy Payne, Jr., The Peoples Natural Gas Co.; Technical Section, D. P. Hartson.

Construction Budget

A $7,900,000 construction budget has been authorized for the gas department of the Public Service Electric and Gas Co., Newark, N. J., in 1947, and $800,000 for the Atlantic City Gas Co., Peoples Gas Co. and County Gas Company. These amounts are in addition to $6,000,000 appropriated earlier in 1946 for gas works equipment and distribution mains.

Portland Restricts Heating

WITH gas heating equipment being connected to its mains faster than its gas production and distribution facilities can be stepped up to meet the growing demand, Portland Gas & Coke Co. (Oregon) has invoked restrictions on the connection of any new heating and certain volume industrial business beyond that already applied for.

C. H. Gueffroy, vice-president, reported that the number of heating customers served by the company has more than doubled since 1940 even though wartime restrictions were in effect during most of that period. He said also that each heating customer has an average demand equal to that of 23 domestic users. The Portland utility has a much higher percentage of heating customers than do most gas systems, he added.

"The result," he said, "is that the daily peak demand on our system already has topped 57 million cubic feet on a moderately cold day this winter and will reach 65 million if we get a mean temperature of 15 degrees. When contrasted with a minimum summer demand of about 12 million cubic feet a day, the size of the seasonal load imposed by heating is readily apparent."

During the past five years the utility has greatly increased its plant generating capacity and has also installed much additional compressor capacity and liquefied petroleum gas storage facilities, spending approximately $1,750,000 during 1946 alone, according to Mr. Gueffroy. He estimated that more than $2,500,000 will have to be spent in 1947 to prepare for next winter's peak load which may reach 72 million cubic feet even with the new restrictions.

Appliance Brochure

A COMPREHENSIVE new brochure entitled, "Product, Plan and Profit" has recently been released by the Incineration Division of Bowser, Inc., manufacturers of gas-fired Incinor.

Available to gas companies, dealers, and distributors, this booklet tells in concise manner the story of the product and the merchandising plan behind it, and points out the profit opportunities which the residential incinerator market offers. A copy may be obtained by writing to Bowser, Inc., 647 W. Virginia Street, Milwaukee 4, Wisconsin.

In Memory of Mr. Cohn

AT a regular meeting of the Executive Board of the American Gas Association, held January 29, the following resolution was unanimously adopted:—

Resolved, That the Executive Board of the American Gas Association record this expression of its profound sorrow at the death on December fifth, nineteen hundred and forty-six, of Charles M. Cohn.

Mr. Cohn has served the Association and the gas industry faithfully and effectively for many years. He was elected a Director in 1927 for two years, again in 1935, and continued in that capacity until his resignation was accepted the day before his death. His service with the Association was characterized by his keen analytical mind, his kindly and ever thoughtful consideration of others, and by his devoted interest in all plans for the advancement of the gas industry.

Mr. Cohn was born in Baltimore in 1873. He entered the employ of The Consolidated Gas Co. of Baltimore at the age of 12 as an office boy. While employed, Mr. Cohn graduated from business college in 1893; graduated in law and was admitted to the bar in 1895; graduated from Loyola College with an A.B. Degree in 1897; he was awarded an M.A. Degree by Loyola College in 1899 and the Honorary Degree of Doctor in Laws in 1942. At his death, Mr. Cohn was Chairman of the Board of the Consolidated Gas Electric Light and Power Co. of Baltimore. As has been so aptly said, "his career exhibits the rare opportunities for and recognition of individual worth under the American system of free enterprise of which the corporate history of this country affords so many inspiring examples."

In his long service in the gas industry and as a member of this Executive Board, Mr. Cohn has earned the respect of his associates for his character, knowledge, ability and energy. Always a champion of fairness to all concerned, his judgment in matters concerning the gas industry had a consideration for others which made that judgment of enduring significance.

Resolved, That this resolution be spread upon the minutes of this meeting and a copy be transmitted to Miss Pauline Cohn and the President of the Consolidated Gas Electric Light and Power Co. of Baltimore.

Obituary

R. G. Soper

RICHARD G. SOPER, former president of the Dallas Gas Co., and former vice-president, in charge of the Dallas Division of Distribution, Lone Star Gas Company, died from a heart attack at his home in Bethesda, Maryland, Friday, January 31. He retired as vice-president of Lone Star, January 1, 1944.

At the time of his retirement, Mr. Soper had been identified with the gas industry in Dallas for 35 years. He first moved to Dallas in 1909, the year before natural gas was turned into the mains in that city, and was appointed secretary of the Dallas Gas Company.

He was elected vice-president in 1928, and president and general manager September 13, 1933, upon the death of the late Henry C. Morris. The Dallas Gas Co. became a corporate part of Lone Star in 1942, and Mr. Soper was elected a vice-president of the larger organization. The Dallas Division of the company is the largest single distribution unit in the system.

Mr. Soper leaves his wife, Mrs. Ruth Gregory Soper, daughter of T. B. Gregory, chairman of the board of Lone Star Gas Corp., and a daughter, Miss Mary Soper, of Long Beach, California.

Edwin L. White

EDWIN L. WHITE, former executive of The Laclede Gas Light Co., St. Louis, died February 11 at his home, 717 North Kirkwood Road, Kirkwood, Missouri. At the time illness forced his retirement from active service with Laclede in May, 1941, Mr. White was vice-president and a member of the board of directors.

He came to Laclede in 1922 from the Missouri Public Service Commission, where he had served nine years, holding the position of chief accountant at the time of his transfer. He had been with Laclede but a short time, when he was named comptroller and elected to the board of directors. He was elected secretary-treasurer in February, 1932, and on January 3, 1941, was made a vice-president.

During his active years with Laclede he was a member of the Comptrollers' Institute of America, The Missouri Athletic Club and the Chamber of Commerce. His ability in utility accounting and finance was recognized, not only in his own organization but throughout the industry.

Mr. White is survived by his wife.

ALBERT C. ROEGER, 54, superintendent of the Lorain Division of American Stove Company, and an employee of the company for 40 years, died January 20 at the wheel of his automobile.

Mr. Roeger was formerly employed by the Dangler Branch of the American Stove Company in Cleveland and was transferred to the Lorain Division in 1935 as foreman of the tin shop.

His home was at 2140 Burt Road, Lakewood, Ohio. Survivors are a wife and daughter.

GEORGE G. SHEEHAN, of Lakewood, Ohio, an executive of the East Ohio Gas Company for the past 14 years, passed away suddenly in New Port Richey, Florida, January 26 from a heart attack. Mr. Sheehan had travelled from Cleveland, Ohio, to Florida by car, arriving January 25 to spend the winter in the South in order to regain his health.

Mr. Sheehan was a member of Woodward Lodge, Holy Grail Commandry, Knights' Templar and Al Koran Shrine, being a 32 degree Mason. He leaves a wife and son.

New A. G. A. Members

GAS COMPANIES*

Mountain Fuel Supply Co., Salt Lake City, Utah (J. D. Roberts, Vice-President)

MANUFACTURER COMPANIES*

Brown Fintube Co., Elyria, Ohio (Robert W. Kaase, Secretary)

Columbia Specialty Co., Chevey Chase, Md. (Jos. Richards, Sr., President)

Commercial Appliance Co., New York, N. Y. (Earl Polak, Vice-President)

Continental Sales Co., Houston, Texas (Rose Merfish, Owner)

Darra-James Corp., Tube-Tite Div., Waterbury, Conn. (Frank J. Lovett, General Manager)

The Dow Chemical Co., Midland, Michigan (Arthur Smith, Jr., Manager Cathodic Prot. Sales)

Front Rank Furnace Co., St. Louis, Mo. (John J. Walsh, Purchasing Agent)

Gaffers & Sattler, Div. of Utility Appliance Corp., Los Angeles, Calif. (W. M. Couzens, General Manager)

Gas & Oil Industry Laboratories, Inc., Irvington, N. J. (Frank K. McGowan, Chief Engineer)

Geisel Manufacturing, Inc., Elyria, Ohio (Floyd F. Schlitt, Vice-President)

Hirsh Manufacturing Co., Dallas, Texas (H. H. Hirsh, President)

Incinerator Products Co., Detroit, Michigan (Robert D. Smith, Secretary-Treasurer)

Le Winter Appliance Co., Los Angeles, Calif. (Samuel W. Le Winter, President)

Los Angeles Gas Appliance Co., Inc., Los Angeles, Calif. (D. F. Sisto, President)

Luxra Co., Atchison, Kansas (Albert S. Rasmussen, President)

Market Forge Co., Food Service Div., Everett, Mass. (J. H. Holman, Manager)

The Nat Corp., Kansas City, Mo. (Nathan Baraban, President)

Occidental Stove Co., Div. of Utility Appliance Corp., Los Angeles, Calif. (Maurice Breslow)

Pacific Coast Heater Corp., San Gabriel, Calif. (Brian T. Rolfe, President)

Rales Laboratory, Rockford, Ill. (Leslie A. Krauthoff, Owner)

Taco Heaters, Inc., New York, N. Y. (Joseph R. Murphy, Vice-President)

Unimatic Heating Systems, Inc., Los Angeles, Calif. (L. E. McIlveen, President)

Western Welding Works, Los Angeles, Calif. (Meade McClanahan, Owner)

H. William Schenck, Southern California Gas Co., Glendale, Calif.

J. G. Shattuck, H. Zinder, Utility Consultant, Washington, D. C.

Virginia Shattuck, Pacific Gas & Electric Co., San Rafael, Calif.

Lawrence I. Shaw, Northern Natural Gas Co., Omaha, Nebraska

W. A. Shipman, United Fuel Gas Co., Charleston, W. Va.

Donald E. Shively, Southern Counties Gas Co., Monrovia, Calif.

Stanley M. Slater, Alabama Gas Co., Montgomery, Alabama

Berton J. Smallwood, Southern Counties Gas Co., El Monte, Calif.

Bryant M. Smilie, Alabama Gas Co., Tuscaloosa, Alabama

Albert T. Stampe, The Brooklyn Union Gas Co., Brooklyn, N. Y.

Frank H. Stiening, Hamburg Brothers, Pittsburgh, Pa.

Charles F. Stubbs, Jr., Alabama Gas Co., Gadsden, Alabama

Neil B. Sumner, Southern Counties Gas Co., Torrance, Calif.

Frederick Theisen, Jr., Southern California Gas Co., Los Angeles, Calif.

J. Elmer Tourtellotte, Pacific Gas & Electric Co., Vallejo, Calif.

William J. Towner, The Brooklyn Union Gas Co., Brooklyn, N. Y.

Jacob W. Trenkle, Pittsburgh Plate Glass Co., Ford City, Pa.

M. C. Tureman, British Columbia Electric Co., Ltd., Victoria, B. C.

Lyman M. Van der Pyl, Rockwell Manufacturing Co., Pittsburgh, Pa.

Earl Vannoy, National Utilities Co. of Michigan, Hillsdale, Mich.

Edward L. Vervoort, The Brooklyn Union Gas Co., Brooklyn, N. Y.

Roy W. Wages, Georgia Power Co., Columbus, Ga.

Rolland T. Watkins, Southern Counties Gas Co., San Pedro, Calif.

Thomas Watson, Philadelphia Gas Works Co., Philadelphia, Pa.

John A. Weaver, Southern Counties Gas Co., Los Angeles, Calif.

Lowell W. Weiss, Southern California Gas Co., Burbank, Calif.

Andrew Welsch, The Brooklyn Union Gas Co., Brooklyn, N. Y.

J. M. Williamson, Domec S. R. Ltda., Argentina, S. A.

Avery W. Willis, Jr., Seattle Gas Co., Seattle, Washington

Constance W. Winkleman, Southern Counties Gas Co., Santa Monica, Calif.

E. M. Woods, Southern Counties Gas Co., Monrovia, Calif.

L. W. Wuellner, National Utilities Co. of Michigan, Coldwater, Mich.

Donald A. Young, The Brooklyn Union Gas Co., Brooklyn, N. Y.

Raymond L. Zeliff, Jr., Public Service Electric & Gas Co., Harrison, N. J.

H. L. Ziegenbein, Consumers Power Co., Alma, Michigan

INDIVIDUAL MEMBERS

Vincent V. Abajian, Ernest C. Lundt, Inc., Fairlawn, N. J.

C. N. Alexander, Southern California Gas Co., Los Angeles, Calif.

Raymond W. Anderson, Southern Counties Gas Co., Santa Monica, Calif.

A. Balchin, Pacific Gas & Electric Co., Monterey, Calif.

T. F. Bell, Interlake Iron Corp., Cleveland, Ohio

John J. Blanchfield, The Brooklyn Union Gas Co., Brooklyn, N. Y.

R. B. Bowman, California Research Corp., Richmond, Calif.

John Brass, Jr., Pacific Gas & Electric Co., San Francisco, Calif.

Abner C. Bristol, Jr., The Connecticut Light & Power Co., Thompsonville, Conn.

Edward J. Cantwell, The Brooklyn Union Gas Co., Brooklyn, N. Y.

Christopher R. Clarke, The Brooklyn Union Gas Co., Brooklyn, N. Y.

A. E. Clune, Southern California Gas Co., Los Angeles, Calif.

A. R. Cox, San Diego Gas & Electric Co., San Diego, Calif.

Stuart M. Crocker, Columbia Gas & Electric Corp., New York, N. Y.

R. M. Crosby, Southern California Gas Co., Los Angeles, Calif.

Donald A. Darlington, Southern Counties Gas Co., Santa Maria, Calif.

Henry S. Davis, Philadelphia Electric Co., Jenkintown, Pa.

Jas. A. Drummond, Pacific Gas & Electric Co., San Francisco, Calif.

E. R. Dwight, Southern California Gas Co., San Bernardino, Calif.

Howard Dyer, Manhattan Beach, Calif.

Fermin Echevarrieta, Southern Counties Gas Co., San Pedro, Calif.

Fred D. Ellis, Northwestern Ill. Gas & Electric Co., Chicago, Ill.

Harold D. Elsinger, Richmond Radiator Co., Uniontown, Pa.

Chas. W. Fischle, Southern Counties Gas Co., Santa Ana, Calif.

Martin M. Gibbons, The Brooklyn Union Gas Co., Brooklyn, N. Y.

Irving Greenwood, Stoke-on-Trent Gas Dept., Stoke-on-Trent, England

Elwin E. Hadlick, National Butane-Propane Association, Minneapolis, Minn.

Edw. M. Hahn, Kokomo Gas & Fuel Co., Kokomo, Indiana

Edwin A. Harris, The Connecticut Light & Power Co., Norwalk, Conn.

Samuel H. Harris, Southern California Gas Co., Montebello, Calif.

Henry Hartmann, The Brooklyn Union Gas Co., Brooklyn, N. Y.

L. R. Hatton, Kokomo Gas & Fuel Co., Kokomo, Ind.

A. L. Hawley, Jr., Williams-Wallace Co., San Francisco, Calif.

John T. Haynes, The Bournemouth Gas & Water Co., Bournemouth, England

Robert F. Hebeler, Monarch Gas Co., St. Elmo, Ill.

George H. Heiderich, The Brooklyn Union Gas Co., Brooklyn, N. Y.

* Names in parentheses are Company Delegates of the American Gas Association.

George J. Heinz, The Brooklyn Union Gas Co., Jamaica, N. Y.
W. J. Hixon, Jr., Southern California Gas Co., Los Angeles, Calif.
Edward C. Hollowell, The Brooklyn Union Gas Co., Brooklyn, N. Y.
C E. Houlgate, Southern California Gas Co., Los Angeles, Calif.
James H. J. Hughes, Jr., The Brooklyn Union Gas Co., Brooklyn, N. Y.
Scott Hughes, Southern Union Gas Co., Dallas, Texas
Lloyd A. Hunziker, The Brooklyn Union Gas Co., Brooklyn, N. Y.
Samuel W. Jeffrey, The Brooklyn Union Gas Co., Brooklyn, N. Y.
Howard L. Johnson, Pacific Gas & Electric Co., San Francisco, Calif.
Reinhold H. Johnson, The Brooklyn Union Gas Co., Brooklyn, N. Y.
A. L. Judson, Iron Fireman Mfg. Co., Heating Control Div., Portland, Ore.
Clifford E. Jurgensen, Minneapolis Gas Light Co., Minneapolis, Minn.
Paul King, Southern Counties Gas Co., Santa Ana, Calif.
Helen Kirtland, Ohio Fuel Gas Co., Columbus, Ohio
Gerald T. Kurtz, The Paraffine Cos., Inc., Emeryville, Calif.
Frank J. Lilly, Surface Combustion Corp., Columbus, Ohio
Cecil E. Loomis, Columbia Engineering Corp., New York, N. Y.
John S. McElwain, The Peoples Natural Gas Co., Pittsburgh, Pa.
R. L. McVey, Tennessee Gas & Transmission Co., Houston, Texas
Norman S. Mickelson, Southern Counties Gas Co., San Pedro, Calif.
Edwin H. Miller, Alabama Gas Co., Anniston, Ala.
J. T. H. Morris, Southern California Gas Co., Los Angeles, Calif.
Clarence E. Muehlberg, Calray Distributors Inc., New York, N. Y.
F. K. Murray, Southern California Gas Co., Los Angeles, Calif.

(Additional new members will be listed in the next issue.)

DEMONSTRATION KIT

(Continued from page 126)

kit is so designed that most of the equipment taken out and replaced with other utensils with very little loss of space. In all cases we've tried to make it as flexible as possible so we wouldn't feel bound to any one demonstration.

We did not include certain pieces of equipment such as mixers or coffee makers because we felt that many of the dealers would be selling these and would be very happy to have them used. One cooking utensil which we did include as part of our standard equipment was a pressure saucepan. We felt that this appliance would be used in almost every gas range demonstration because of its special adaptability to gas cooking.

The dealer is expected to supply all of the groceries needed in the demonstration although the home service adviser may do the shopping.

This kit can be very easily made by one of the men in your company. Ours was made by the display department and was constructed of plywood. The exact cost was not determined because many of the materials used were leftovers from other jobs.

Home service can be a concrete proof of the company's good will towards the dealers even though an active merchandising program is also in progress. This demonstration kit is just one of the tools available for better carrying out our dealer program. We want all our dealers to enjoy the benefits of home service just as our own sales department does.

CONVERSION BURNER PROBLEM

(Continued from page 113)

fore your customer can be protected from poor conversion burner installations.

We believe the following steps are essential:

1. Full management support of overall policy.
2. The delegation of responsibility and authority to the proper persons to carry on this work.
3. A sales-engineering staff to properly train installers, to inspect their work and compile the necessary heating data.
4. A firm testing policy whereby a screening process eliminates undesirables before testing.
5. Necessary service records to supplement recommendations and act as further basis for decisions.
6. The refusal by your company to serve gas to an installation which in its judgment is unsafe.

"What have we accomplished by this method of operation?" Of all the conversion burner sales in Chicago in 1946, 94 percent were of equipment which our company had tested and approved.

The high expense involved in making safe the remaining six percent of these installations proved to the installing contractor, the manufacturer and ourselves that our program was sound and that it would be much better for all concerned if the manufacturer would have his equipment changed and tested to meet our requirements before any installations are made in our territory.

BUILDING BETTER "CP" GAS RANGES

(Continued from page 124)

location of the top pilot; natural gas on the other hand is scarcely any lighter than air, and LP gas is actually heavier than air. Therefore neither of those gases perform very well on single-point ignition. Whether or not this problem will ever be satisfactorily solved remains to be seen. Furthermore, there are as yet no requirements for A. G. A. Blue Star approval of single-point ignition. A manufacturer desiring to offer a range with single-point ignition and bearing the A. G. A. Blue Star of Approval would first have to obtain the approval of the A. G. A. Laboratory Requirements Committee, which is necessarily a slow process.

Any automatic oven ignition system available today, either constant burning pilot or single-point, must be installed at the factory. It is not yet possible to install this feature in the field, anymore than it is possible to install an oven heat control on a range which was not built at the factory with heat control.

There have been some interesting developments recently in the use of automatic clock controls for gas range ovens. Prewar, it was necessary in every case to physically pipe gas through the clock in order to control its flow to the oven burner. The clock, furthermore, had to be mounted permanently in place and it was not very practical to attempt to install clock control on a range in the field.

Newer types of clocks, however, are designed so that they can be removed from or added to the range in the field without any complications. Further, clocks are now available which are connected to the gas supply by only two small wires so that it is not necessary to run the gas itself through the clock system. This greatly simplifies the installation of flush-to-wall clock-controlled ranges and also eliminates any difficulty from pressure drops which might be encountered by running gas through a rather elaborate system of tubing.

During 1947 you will find some manufacturers offering clock-controlled systems which pass the gas through these clocks and others using the two-wire system. Either system is thoroughly reliable and it is inconsequential to the user which is used. Some range manufacturers may offer designs by which

ranges with automatic oven ignition can have clocks added to them in the field, while others may find it necessary to install the clock as well as the automatic oven ignition at the factory.

Another feature which is becoming increasingly popular on ranges is oven illumination. Successful oven illumination calls for more than merely taking an electric socket and a light bulb and sticking it into the oven. An ordinary bulb subjected to oven temperatures would burn out very quickly, due to oxidation of the filament by the air and moisture in the bulb. Bulbs used for oven illumination are manufactured especially for that purpose with practically 100 percent of the air and the moisture exhausted so that oxidation does not occur at high temperatures. Furthermore, a special filament is used and all wire and filament joints are welded, not soldered as in an ordinary bulb as solder would melt at high temperature. Finally, a special ceramic cement is used to fasten the base of the bulb to the glass.

The lamp socket likewise is especially designed for oven use. All solder joints are eliminated and the metal portion is especially plated to prevent corrosion and a consequent binding of the lamp in the socket. All wiring has a heavy asbestos insulation surrounded by a metal casing.

Each manufacturer has his own method of installing a switch for the light which is usually operated by the movement of the oven door, while on models with glass oven doors a second switch for manual operation is usually provided.

The important thing for the user to remember, when replacing the bulb, is always to buy the type marked "oven bulb" as such a bulb will render very satisfactory service, whereas an ordinary household bulb will last hardly any time at all.

Two recent developments in the field of foods suggest themselves to us as possibly calling for new devices on gas ranges. One is the pressure saucepan. The speed and convenience of pressure cooking has taken the country by storm, and it would not be surprising to find that during 1946, housewives as a group, invested almost as much in pressure saucepans at $12 to $15 each as they did in complete new ranges! How can we modify gas range design to make it even easier and more certain to use pressure methods of cooking?

Another recent development of great interest to the cooking appliance industry is the increased popularity of frozen foods. The advent of frozen foods virtually eliminates "off seasons" for foods and makes it possible for the housewife to prepare on short notice a delicious full course dinner of everything from fruit juice to piping hot mince pie. How can we design our ranges to make the preparation of frozen foods simpler, quicker, and completely satisfying? It is developments of this kind to which we must be keenly alert if we are to preserve gas as America's favorite cooking fuel.

We in the gas industry are indeed fortunate in having an association like the A. G. A. with an elaborate laboratory to carry on research and testing that is far beyond the scope of any individual manufacturer. We are fortunate in having a goodly number of manufacturers constructively competing with one another to keep our industry alert and progressive—fortunate in having an association like the G.A.M.A. to sponsor coordinated promotion programs such as the "CP" Program so that the public will know and appreciate the merits of gas and gas appliances. And we are fortunate finally in the fuel that serves us, naturally endowed as it is with qualities that make it not only unexcelled, but clearly even unequalled for cooking, heating and refrigeration.

Personnel Service

SERVICES OFFERED

Industrial Sales Manager graduate mechanical engineer with business administration training. Available immediately anywhere. Fifteen years supervisory experience. **1538.**

Administrative Assistant; over 20 years' experience as Secretary and General Assistant to President of large utilty holding company now being liquidated, desires positon vicinity of New York. Capable of handling correspondence, financial, research and statistical matters. Knowledge of accounting. **1539.**

Design, Production, Sales Engineer on Commercial and Industrial equipment immediately available; fifteen years successful experience in the gas industry. Single, college graduate 1927. can locate or travel anywhere. Intimate knowledge of production methods and layout; specification of production equipment and supplies. Further details and interview on request. (40). **1540.**

Manager Manufactured or Natural Gas Utility. Experience covers 20 years operations, consulting, inventory-valuation and new business, also L. P. Gas. Go anywhere East; interviews arranged. (50). **1541.**

POSITIONS OPEN

Engineer familiar with the manufacturing end of the gas industry to head up a department for the promotion of a new development. **0479.**

Services required of **Gas Engineer** to design radiant and circulating space heaters for new concern starting production in New Orleans. Competent consultant in different locality acceptable. Permanent or temporary. **0480.**

Assistant to **General Manager** of New England Gas Utility—500,000 M annually. Prospect of succeeding to General Managership in three or four years. Graduate engineer with background of experience in operating water gas property preferred. Excellent salary prospects. Give full particulars in application. Confidential. **0482.**

Foreman for medium size New England Plant—water gas using heavy oil. Excellent opportunity for man capable of managing all activities. Give full particulars. **0483.**

Gas Plant Engineer having a minimum of two years' experience in water gas production, and at least three years' college training in engineering. Supervisory position in gas plant operation of gas distribution and the commercial phase of the work. **0484.**

General Gas Superintendent for Latin American gas public utility. Applicant to have experience in manufacture of gas, using Jones oil-gas process or equivalent. Position also requires experience in distribution and customer relations. Salary open. Applicant to submit full details of education, experience and references. **0485.**

Assistant Superintendent Water Gas Plant making Synthesis Gas in thirteen 11 foot U. G. I. units. Experienced man with a technical educational background desired, salary commensurate with ability and experience, large Chemical Plant located in northern West Virginia. **0486.**

Gas Plant Engineer for plant in New England, having several years experience in coal and water gas manufacture. Supervisory position. Write fully, giving experience, salary expected and date available. Send photo if available. **0487.**

Product Review Engineer. Graduate, young, to assist in product review and development work; field or production experience in gas heating or gas appliance designing, redesigning and testing desirable. This is not a routine research assignment. New ideas, imagination and inventiveness helpful. Those meeting these requirements please reply giving brief prospectus of experience. Confidential. Cleveland, Ohio. Salary $250 to $300. Opportunity for advancement. **0488.**

Gas Engineer, age about 30, to act as Assistant General Manager for manufacturer of pressure control and national service organization. Starting salary $400. per month. **0489.**

Research Gas Engineer familiar with both theory and operation of all gas manufacturing processes and especially complete gasification of coal. Location in Middle Atlantic region. Good opportunity for man, preferably under 40, with good chemical or mechanical engineering education and ability to initiate and carry on new developments. Give full details of education, experience, references and salary expected. **0490.**

Engineer, cadet or apprentice required by one of the oldest makers of gas fired industrial, commercial and domestic heating equipment. Opening for a **young man** with a degree in mechanical, electrical, chemical or related engineering, with aptitude for development, experimental, design and test work which will require a good head and a good pair of hands, recently out of college (or the service) with little or no working experience. He should expect to live in a small town and like it, at a beginning salary that he won't brag much about but with the opportunity to get more as soon as he is worth it. **0491.**

Experienced **Shift Foreman** for growing 8 million daily Eastern CWG system; reports to Assistant Superintendent and will supervise overall operation of water gas plant. Give full details of experience, age, salary desired. **0492.**

ADVISORY COUNCIL

ERNEST R. ACKER.....Poughkeepsie, N. Y.
FRANK H. ADAMS.....Toledo, Ohio
BURT R. BAY.....Omaha, Neb.
A. F. BRIDGE.....Los Angeles, Calif.
FLOYD C. BROWN.....Chicago, Ill.
LYMAN L. DYER.....Dallas, Texas
LESTER J. ECK.....Minneapolis, Minn.
E. F. EMBREE.....New Haven, Conn.
HENRY FINK.....Detroit, Mich.
RALPH L. FLETCHER.....Providence, R. I.
HAROLD L. GAIDRY.....New Orleans, La.
GEORGE S. HAWLEY.....Bridgeport, Conn.
FRANK E. HOENIGMANN.....Gardner, Mass.
W. ALTON JONES.....New York, N. Y.
L. E. KNOWLTON.....Providence, R. I.
MALCOLM LEACH.....Taunton, Mass.
J. L. LLEWELLYN.....Brooklyn, N. Y.
H. N. MALLON.....Bradford, Pa.
L. A. MAYO.....Hartford, Conn.
NORTON MCKEAN.....New York, N. Y.
C. E. PACKMAN.....Chicago, Ill.
J. J. QUINN.....Boston, Mass.
BRUNO RAHN.....Milwaukee, Wis.
O. H. RITENOUR.....Washington, D. C.
JOHN A. ROBERTSHAW.....Youngwood, Pa.
J FRENCH ROBINSON.....Cleveland, Ohio
W. F. ROCKWELL.....Pittsburgh, Pa.
LOUIS RUTHENBURG.....Evansville, Ind.
B. A. SEIPLE.....Asbury Park, N. J.
C. V. SORENSON.....Fort Wayne, Ind.
MARCY L. SPERRY.....Washington, D. C.
T. J. STRICKLER.....Kansas City, Mo.
HARRY A. SUTTON.....Newark, N. J.
CHARLES A. TATTERSALL.....Syracuse, N. Y.
J. H. WARDEN.....New York, N. Y.
R. E. WERTZ.....Amarillo, Texas
HARRY K. WRENCH.....Minneapolis, Minn.
CHARLES G. YOUNG.....Springfield, Mass.
P. S. YOUNG.....Newark, N. J.

ASSOCIATED ORGANIZATIONS

Gas Appliance Manufacturers Association
Pres.—D. P. O'Keefe, O'Keefe & Merritt Co., Los Angeles, Calif.
Man. Dir.—H. Leigh Whitelaw, 60 East 42nd St., New York, N. Y.

Canadian Gas Association
Pres.—Lt. Col. Thomas Weir, Union Gas Co. of Canada Ltd., Chatham, Ont.
Exec. Sec.-Tr.—George W. Allen, 7 Astley Ave., Toronto.

Gas Meters Association of Florida-Georgia
Pres.—B. G. Duncan, South Atlantic Gas Co., Orlando, Fla.
Sec.-Tr.—J. W. Owen, Central Florida Gas Corp., Winter Haven, Fla.

Illinois Public Utilities Association
Pres.—C. W. Organ, Central Illinois Light Co., Springfield, Ill.
Sec.-Tr.—T. A. Schlink, Central Illinois Light Co., Springfield, Ill.

Indiana Gas Association
Pres.—E. D. Anderson, Northern Indiana Public Service Co., Hammond, Ind.
Sec.-Tr.—Clarence W. Goris, Northern Indiana Public Service Co., 500 Broadway, Gary, Ind.

Michigan Gas Association
Pres.—Henry Fink, Michigan Consolidated Gas Co., Detroit, Mich.
Sec.-Tr.—A. G. Schroeder, Michigan Consolidated Gas Co., Grand Rapids, Mich.

Maryland Utilities Association
Pres.—O. H. Ritenour, Washington Gas Light Co., Washington, D. C.
Sec.—Raymond C. Brehaut, Washington Gas Light Co., Washington, D. C.

Mid-Southeastern Gas Association
Pres.—C. B. Zeigler, Public Service Co. of N. C., Inc., Gastonia, N. C.
Sec.-Tr.—Edward W. Ruggles, North Carolina State College, Raleigh, N. C.

Mid-West Gas Association
Pres.—E. C. Deane, Central Electric & Gas Co., Sioux Falls, S. D.
Sec.-Tr.—Roy B. Searing, Sioux City Gas & Electric Co., Sioux City, Iowa.

Missouri Association of Public Utilities
Pres.—J. F. Porter, Jr., Kansas City Power & Light Co., Kansas City, Mo.
Gen. Counsel—Wm. H. Allen, 101 W. High Street, Jefferson City, Mo.
Sec.—E. A. Beer, 101 W. High Street, Jefferson City, Mo.

Natural Gas and Petroleum Association of Canada
Pres.—S. A. Morse, Union Gas Co. of Canada, Ltd., Chatham, Ont.
Sec.—Jos. McKee, United Gas and Fuel Co. of Hamilton, Ltd., Hamilton, Ont.

New England Gas Association
Pres.—L. E. Knowlton, Providence Gas Co., Providence, R. I.
Exec.-Sec.—Clark Belden, 41 Mt. Vernon St., Boston, Mass.

New Jersey Gas Association
Pres.—P. D. Gardner, Public Service Electric and Gas Co., Camden, N. J.
Sec.-Tr.—Elmer A. Smith, Public Service Electric and Gas Co., Newark, N. J.

Oklahoma Utilities Association
Pres.—S. I. McElhoes, Public Service Company of Oklahoma, Chickasha, Oklahoma.
Sec.—Kate A. Niblack, 625 Biltmore Hotel, Oklahoma City, Okla.

Pacific Coast Gas Association
Pres.—Le Roy M. Edwards, Pacific Lighting Corp., Los Angeles, Calif.
Man. Dir.—Clifford Johnstone, 447 Sutter St., San Francisco, Calif.

Pennsylvania Gas Association
Pres.—Frank H. Trembly, Jr., The Philadelphia Gas Works Co., Philadelphia, Pa.
Sec.—William Naile, Lebanon Valley Gas Co., Lebanon, Pa.

Pennsylvania Natural Gas Men's Association
Pres.—E. M. Borger, The Peoples Natural Gas Co., Pittsburgh, Pa.
Exec. Sec.—Mark Shields, 2619 Grant Bldg., Pittsburgh, Pa.

Southern Gas Association
Pres.—Dean A. Strickland, United Gas Corp., Houston, Texas.
Man. Dir.—Robert R. Suttle, 1230 Mercantile Bank Building, Dallas 1, Texas.

Wisconsin Utilities Association
Pres.—B. E. Miller, Wisconsin Power and Light Co., Madison, Wis.
Exec.-Sec.—A. F. Herwig, 135 West Wells St., Milwaukee, Wis.

AMERICAN GAS ASSOCIATION

HEADQUARTERS, 420 LEXINGTON AVE., NEW YORK 17, N. Y.

A. G. A. TESTING LABORATORIES • 1032 East 62nd Street, Cleveland 14, Ohio • 1425 Grande Vista Avenue, Los Angeles, Calif.

◀ OFFICERS ▶

President	R. H. HARGROVE	Shreveport, La.
First Vice-President	HUDSON W. REED	Philadelphia, Pa.
Second Vice-President	ROBERT W. HENDEE	Colorado Springs, Colo.
Treasurer	EDWARD F. BARRETT	Mineola, N. Y.
Assistant Treasurer	V. T. MILES	Mineola, N. Y.
Managing Director	H. CARL WOLF	New York, N. Y.
Secretary	KURWIN R. BOYES	New York, N. Y.

◀ DEPARTMENT CHAIRMEN ▶

Manufactured Gas Department	HUDSON W. REED	Philadelphia, Pa.
Natural Gas Department	ROBERT W. HENDEE	Colorado Springs, Colo.

◀ SECTION VICE-PRESIDENTS AND CHAIRMEN ▶

Accounting Section	L. V. WATKINS	New York, N. Y.
Residential Gas Section	WALLACE M. CHAMBERLAIN	Grand Rapids, Mich.
Industrial & Commercial Gas Section	KARL EMMERLING	Cleveland, Ohio
Manufacturers' Section	R. L. O'BRIEN	Detroit, Mich.
Publicity & Advertising Committee	E. M. THARP	Columbus, Ohio
Technical Section	C. S. GOLDSMITH	Brooklyn, N. Y.

◀ DIRECTORS ▶

F. M. BANKS	Los Angeles, Calif.	D. P. HARTSON	Pittsburgh, Pa.
R. G. BARNETT	Portland, Ore.	LYLE C. HARVEY	Cleveland, Ohio
WALTER C. BECKJORD	Cincinnati, Ohio	D. A. HULCY	Dallas, Texas
A. M. BEEBEE	Rochester, N. Y.	GEORGE F. MITCHELL	Chicago, Ill.
EVERETT J. BOOTHBY	Washington, D. C.	HENRY H. MORSE	Gardner, Mass.
JAMES A. BROWN	New York, N. Y.	E. P. NOPPEL	New York, N. Y.
HENRY R. COOK, JR.	Baltimore, Md.	D. P. O'KEEFE	Los Angeles, Calif.
E. H. EACKER	Boston, Mass.	C. E. PAIGE	Brooklyn, N. Y.
R. E. FISHER	San Francisco, Calif.	JOHN C. PARKER	New York, N. Y.
J. N. GREENE	Birmingham, Ala.	FRANK C. SMITH	Houston, Texas
H. E. HANDLEY	Jackson, Mich.	A. H. STACK	Tampa, Fla.
		E. J. TUCKER	Toronto, Ont.

◀ ASSOCIATION STAFF ▶

Managing Director	H. CARL WOLF
Assistant Managing Director	JOHN W. WEST, JR.
Assistant Managing Director and Director, Natural Gas Dept.	GEORGE H. SMITH
Secretary and Convention Manager	KURWIN R. BOYES
Secretary, Manufactured Gas Dept. and Technical Section	A. GORDON KING
Controller	O. W. BREWER
Secretary, Accounting Section and Director, Bureau of Statistics	WALTER E. CAINE
Secretary, Industrial and Commercial Gas Section	MAHLON A. COMBS
Secretary, Residential Gas Section	F. W. WILLIAMS
Home Service Counsellor	JESSIE McQUEEN
Director of Promotion	JOHN H. WHITE, JR.
Director, New Freedom Gas Kitchen Program	H. VINTON POTTER
Director, Advertising	CHARLES W. PERSON
Director, Publicity	GEORGE A. McDONALD
Director, Testing Laboratories (Cleveland, Ohio)	R. M. CONNER
Supervisor, Pacific Coast Branch Laboratories (Los Angeles, Calif.)	W. H. VOGAN
Coordinator of General Research	EUGENE D. MILENER
Coordinator, Gas Production Research	EDWIN L. HALL
Utilization Engineer	C. GEORGE SEGELER

Editor, A. G. A. MONTHLY . . . . . JAMES M. BEALL

PRINTED IN U. S. A.